



**Crown Castle**  
3 Corporate Park Drive, Suite 101  
Clifton Park, NY 12065

June 22, 2022

Melanie A. Bachman  
Executive Director  
Connecticut Siting Council  
10 Franklin Square  
New Britain, CT 06051

**RE: Notice of Exempt Modification for T-Mobile: CT11269B**  
**Crown Site#876317**  
**150 Mattatuck Heights, Waterbury, CT 06705**  
**Latitude: 41° 32' 16.30" / Longitude: -72° 59' 6.10"**

Dear Ms. Bachman:

T-Mobile currently maintains nine (9) antennas at the 100-foot mount level on the existing 143-foot monopole tower located at 150 Mattatuck Heights, Waterbury, CT. The property is owned by Waterbury Twin LLC & 150 MH LLC and the tower is owned by Crown Castle. T-Mobile now intends to replace three (3) antennas and ancillary equipment at the 100ft level. This modification/proposal includes hardware that is both 4G (LTE) and 5G capable through remote software configuration and either or both services may be turned on or off at various times.

**Panned Modification:**

**Tower:**

Installed New:

- (3) Ericsson – AIR6419 B41 Antennas
- (3) Ericsson- 4460 B25+B66 RRH
- (1) Hybrid Cable 6x24
- Mount Modification Per TEP design

Remove:

- (3) Ericsson – AIR32 KRD901146-1B66A\_B2A Antennas
- (3) RFS/Cellwave – ATMMA1412D-1A20
- (6) 7/8" Coaxial Cables
- (1) 9x18 HCS Cable

**Ground:**

Install New:

- (1) 6160 Cabinet
- (1) B160 Battery Cabinet
- (1) RP 6651
- (1) PSU 4813 vR2A

The Foundation for a Wireless World.

CrownCastle.com

(1^)^ CRS IXRc V2

Remove:

- (1) RBS 2106 Cabinet
- (1.) DUW30
- (1^)^ RUS01 B4

The facility was approved by the City of Waterbury Planning Commission and was constructed by Sprint in 1999.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Neil M. O'Leary - Mayor, City of Waterbury, Robert Nerney – City Planner, City of Waterbury, Waterbury Twin LLC & 150 MH LLC, Property Owner and Crown Castle is the tower owner.

1. The proposed modifications will not result in an increase in the height of the existing tower.
2. The proposed modifications will not require the extension of the site boundary.
3. The proposed modification will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communication Commission safety standard.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The existing structure and its foundation can support the proposed loading.

For the foregoing reasons, T-Mobile respectfully submits that the proposed modifications to the above-reference telecommunications facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2). Please send approval/rejection letter to Attn: Jeffrey Barbadora.

Sincerely,

  
Jeffrey Barbadora  
Site Acquisition Specialist  
1800 W. Park Drive  
Westborough, MA 01581  
(781) 970-0053  
Jeff.Barbadora@crowncastle.com

Melanie A. Bachman

Page 3

Attachments

cc:

Neil M. O'Leary - Mayor  
City of Waterbury  
235 Grand Street  
Waterbury, CT 06702  
(203) 574-6712

Robert Nerney – City Planner  
City of Waterbury  
235 Grand Street  
Waterbury, CT 06702  
(203) 574-6817

Waterbury Twin LLC & 150 MH LLC  
Leonard Linsbker  
12 Iselin Terrace  
Larchmont, NY 10538

Crown Castle, Tower Owner

**Myl, Kimberly**

---

**From:** Myl, Kimberly  
**Sent:** Tuesday, May 17, 2016 3:38 PM  
**To:** 'siting.council@ct.gov'  
**Subject:** 150 Mattatuck Heights - Existing Telecommunications Tower Original Zoning Approval

To Whom It May Concern:

Please be advised both the township (email below) and Crown Castle as the tower owner, do not have the original zoning resolution on file. Please use this email as notification to waive this requirement as we will include this and the email from the township within our submission.

Please let me know if you have any questions or need additional information. Thank you in advance.

**KIMBERLY MYL**  
Real Estate Specialist  
T: (201) 238-9069 | M: (201) 993-3697

**CROWN CASTLE**  
1200 MacArthur Blvd, Suite 200  
Mahwah, NJ 07430

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**From:** Margaret Rice [<mailto:mrice@waterburyct.org>]  
**Sent:** Tuesday, May 17, 2016 1:03 PM  
**To:** Myl, Kimberly  
**Subject:** RE: 150 Mattatuck Heights - Existing Telecommunications Tower Original Zoning Approval

Hi Kimberly,

I checked our records and City Clerk's office and could not find anything. I then contacted the Town Clerk and I was told that there might be something on the Land Records and that you would need to contact the Town Clerk for them to do a Title Search. They're phone number is (203) 574-6806.

**Cissie**

**Administrative Support Specialist III**  
203)574-6817 Ext.7296



**VOL 2149 PAGE 142**  
Site Plan Decision for recording in the office of the Town Clerk, Land Records, in accordance with Chapter 126, Municipal Planning Commission, Section 8-26e, of the General Statutes of the State of Connecticut:-

15485

OWNER & DEVELOPER

Owner - Waterbury Renewal and Economic Development Agency  
29 Leavenworth Street  
Waterbury, CT 06702

Developer - R R & P Realty  
Mattatuck Heights  
Waterbury, CT 06705

NAME OF SITE PLAN

Site Plan of Parcel #14, Captain Neville Drive Industrial Park Prepared for R.R. & P Realty, Mattatuck Heights, Waterbury, Connecticut, Owner, Applicant: W.R.E.D.A., 29 Leavenworth St., Waterbury, Connecticut, Developer: R.R. & P. Realty, P.O. Box 214, Middlebury, CT, Dated: August 29, 1986, Revised to Sept. 16, 1986, DeCarlo & Doll, Inc., Hamden, CT, Meyers Associates, Waterbury, CT and Joseph Calabrese, Waterbury, CT.

LOCATION: Parcel #14, Captain Neville Drive Industrial Park

At a regular meeting of the City Plan Commission held November 10, 1986, the following vote was unanimously passed to wit:-

VOTED: That the City Plan Commission approves the Site Plan of Parcel #14, Captain Neville Drive Industrial Park, prepared for R.R. & P. Realty, Mattatuck Heights, Waterbury, Connecticut, Owner, Applicant: W.R.E.D.A., 29 Leavenworth St., Waterbury, Connecticut, Developer: R.R. & P. Realty, P.O. Box 214, Middlebury, CT, Dated: August 29, 1986, Revised to September 16, 1986, DeCarlo & Doll, Inc., Hamden, CT, Meyers Associates, Waterbury, CT and Joseph Calabrese, Waterbury, CT, as being in conformance with Article V, Section 5.14-7, Public Housing, Urban Renewal & Redevelopment Projects, of the Zoning Ordinance of the City of Waterbury, Connecticut. This approval is given because the character and appearance of the proposed use and buildings will be in the general harmony with the character and appearance surrounding neighborhood and will not adversely affect the general welfare of the neighborhood. This site plan meets all the requirements of the Bureau of Engineering as attested by the City Engineer, William D. Spallone. This site plan has been approved by the Fire Marshal's Office, Daniel Aybar, Inspector, and Acting Traffic Engineer, Daniel Cashman.

DATES OF REQUIRED APPROVALS

Approved by the Zoning Administrator	September 23, 1986
Approved by the Fire Marshal	September 23, 1986
Approved by the Acting Traffic Engineer	September 24, 1986
Approved by the City Engineer	April 22, 1987
Approved by the City Plan Commission	May 13, 1987

ATTEST: John J. Buckley  
JOHN J. BUCKLEY  
CITY CLERK

RECEIVED FOR RECORD  
1987 SEP -3 AM 10:37

TOWN CLERK  
WATERBURY, CT.

36274

The Assessor's office is responsible for the maintenance of records on the ownership of properties. Assessments are computed at 70% of the estimated market value of real property at the time of the last revaluation which was 2017.

# CITY OF WATERBURY

Information on the Property Records for the Municipality of Waterbury was last updated on 6/22/2022.



## Parcel Information

Location:	150 MATTATUCK HEIGHTS	Property Use:	Industrial	Primary Use:	Industrial - Flex
Unique ID:	042401410001	Map Block Lot:	0424-0141-0001	Acres:	7.0200
490 Acres:	0.00	Zone:	IP	Volume / Page:	4647/ 71
Developers Map / Lot:		Census:			

## Value Information

	Appraised Value	Assessed Value
Land	287,048	200,930
Buildings	1,546,632	1,082,650
Detached Outbuildings	66,320	46,420
Total	1,900,000	1,330,000

## Owner's Information

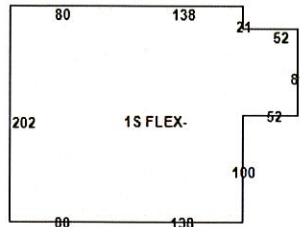
### Owner's Data

WATERBURY TWIN LLC & 150 MH LLC  
% LEONARD LINSBKER  
12 ISELIN TERRACE  
LARCHMONT, NY 10538

## Building 1



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Category:	Industrial	Use:	Industrial - Flex	GLA:	48,248
Stories:	1.00	Construction:	Average	Year Built:	1988
Heating:	Space Heater	Fuel:		Cooling Percent:	0%
Siding:	Brick, Solid	Roof Material:		Beds/Units:	0

### Special Features

Sprinklers 48248

### Attached Components

### Detached Outbuildings

Type:	Year Built:	Length:	Width:	Area:
Asphalt Paving	1988			46,096
Concrete Paving	1988			40
Concrete Paving	1996			390
Concrete Paving	1988			40
Tanks Tanks	1996			1

### Owner History - Sales

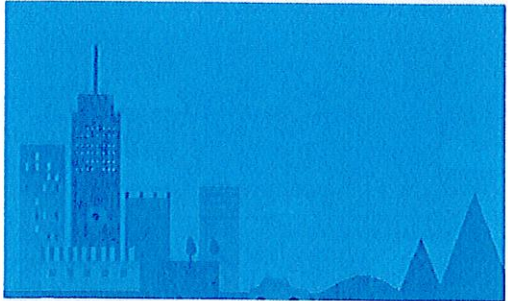
Owner Name	Volume	Page	Sale Date	Deed Type	Sale Price
WATERBURY TWIN LLC & 150 MH LLC	4647	0071	05/15/2003	Warranty Sale	\$2,315,000

## Building Permits

Permit Number	Permit Type	Date Opened	Reason
2020.0581	Plumbing	03/05/2020	remove old power vent water heater install new water heater
2019.3185	Electrical	11/06/2019	att new walk in cabinet for att equipment. third party for inspection.
2019.1540	Electrical	06/07/2019	install 25kw generator for cell site.
2019.0880	Electrical	04/29/2019	AT&T to install (9) antennae (12) remote radio units - (3) DC6s (2) fiber cables on existing teleco
2019.0374	Electrical	02/21/2019	Sprint to remove and replace 3 antennas and remove 3 remote radio heads ( non-Antenna)
2019.0375	Electrical	02/21/2019	Verizon to remove 9 remote radio heads (non-Antenna) and replace with 6 new remote radio heads.
2018.3410	Electrical	12/05/2018	replace 3 existing antennas & 3 RRU's - repace 1 coax line with 1 hybrid fiber line
2017.1945	Electrical	07/26/2017	VERIZON WIRELESS ANTENNA SWAP
2017.0766	Electrical	03/30/2017	REPLACE 3 ANTENNAS
2016.1412	Electrical	06/13/2016	REMOVE AND REPLACE ANTENNA MOUNT
2015.1784	Electrical	08/31/2015	ADD OUTLET FOR CABLE BOX POWER
2014.0494	Electrical	03/13/2014	UPGRADE TELECOMM CABINETS AT CELL SITE
2014.0271	Electrical	02/10/2014	VERIZON WIRELESS UPGRADE AND ANTENNAE
2013.0461	Comm Renovations	02/23/2013	

Information Published With Permission From The Assessor





### 150 Mattatuck Heights Rd

Building

-  Directions
-  Save
-  Nearby
-  Send to your phone
-  Share

 150 Mattatuck Heights Rd, Waterbury, CT 06705

**Barbadora, Jeff**

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**From:** TrackingUpdates@fedex.com  
**Sent:** Thursday, June 23, 2022 9:36 AM  
**To:** Barbadora, Jeff  
**Subject:** FedEx Shipment 777200304617: Your package has been delivered

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.



Hi. Your package was  
delivered Thu, 06/23/2022 at  
9:33am.



Delivered to 235 GRAND ST, WATERBURY, CT 06702  
Received by M.CHOZAK

[OBTAIN PROOF OF DELIVERY](#)

TRACKING NUMBER [777200304617](#)

<b>FROM</b>	Jeff Barbadora 1800 W. Park Drive WESTBOROUGH, MA, US, 01581
<b>TO</b>	City of Waterbury Neil M O'Leary - Mayor 235 grand Street WATERBURY, CT, US, 06702
<b>REFERENCE</b>	799001.7680
<b>SHIPPER REFERENCE</b>	799001.7680
<b>SHIP DATE</b>	Wed 6/22/2022 05:35 PM
<b>DELIVERED TO</b>	Receptionist/Front Desk
<b>PACKAGING TYPE</b>	FedEx Envelope
<b>ORIGIN</b>	WESTBOROUGH, MA, US, 01581
<b>DESTINATION</b>	WATERBURY, CT, US, 06702
<b>SPECIAL HANDLING</b>	Deliver Weekday
<b>NUMBER OF PIECES</b>	1
<b>TOTAL SHIPMENT WEIGHT</b>	1.00 LB
<b>SERVICE TYPE</b>	FedEx Priority Overnight



**Barbadora, Jeff**

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**From:** TrackingUpdates@fedex.com  
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**To:** Barbadora, Jeff  
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9:33am.



Delivered to 235 GRAND ST, WATERBURY, CT 06702  
Received by M.CHOZAK

[OBTAIN PROOF OF DELIVERY](#)

TRACKING NUMBER [777200344893](#)



<b>FROM</b>	Jeff Barbadora 1800 W. Park Drive WESTBOROUGH, MA, US, 01581
<b>TO</b>	City of Waterbury Robert Nerney - City Planner 235 grand Street WATERBURY, CT, US, 06702
<b>REFERENCE</b>	799001.7680
<b>SHIPPER REFERENCE</b>	799001.7680
<b>SHIP DATE</b>	Wed 6/22/2022 05:35 PM
<b>DELIVERED TO</b>	Receptionist/Front Desk
<b>PACKAGING TYPE</b>	FedEx Envelope
<b>ORIGIN</b>	WESTBOROUGH, MA, US, 01581
<b>DESTINATION</b>	WATERBURY, CT, US, 06702
<b>SPECIAL HANDLING</b>	Deliver Weekday
<b>NUMBER OF PIECES</b>	1
<b>TOTAL SHIPMENT WEIGHT</b>	0.50 LB
<b>SERVICE TYPE</b>	FedEx Priority Overnight

**Barbadora, Jeff**

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**From:** TrackingUpdates@fedex.com  
**Sent:** Thursday, June 23, 2022 10:55 AM  
**To:** Barbadora, Jeff  
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Hi. Your package was  
delivered Thu, 06/23/2022 at  
10:53am.



Delivered to 12 ISELIN TER, LARCHMONT, NY 10538  
Received by L.LINSBARKER

**OBTAIN PROOF OF DELIVERY**

TRACKING NUMBER [777200400875](#)

<b>FROM</b>	Jeff Barbadora 1800 W. Park Drive WESTBOROUGH, MA, US, 01581
<b>TO</b>	Waterbury Twin LLC & 150 MH LLC Leonard Linsbker Property Owner 12 Iselin Terrace LARCHMONT, NY, US, 10538
<b>REFERENCE</b>	799001.7680
<b>SHIPPER REFERENCE</b>	799001.7680
<b>SHIP DATE</b>	Wed 6/22/2022 05:35 PM
<b>DELIVERED TO</b>	Residence
<b>PACKAGING TYPE</b>	FedEx Envelope
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<b>DESTINATION</b>	LARCHMONT, NY, US, 10538
<b>SPECIAL HANDLING</b>	Deliver Weekday Residential Delivery
<b>NUMBER OF PIECES</b>	1
<b>TOTAL SHIPMENT WEIGHT</b>	1.00 LB
<b>SERVICE TYPE</b>	FedEx Priority Overnight

May 3, 2022



Tower Engineering Professionals  
326 Tryon Road  
Raleigh, NC 27603  
(919) 661-6351  
[CrownMA@tepgroup.net](mailto:CrownMA@tepgroup.net)

**Subject:** **Mount Analysis - Conditional Passing**

**Carrier Designation:** **T-Mobile Reconfiguration**  
**Client Site Number:** CT11269B  
**Client Site Name:** Waterbury/I-84/Mattatuck

**Crown Castle Designation:** **Crown Castle BU Number:** 876319  
**Crown Castle Site Name:** Waterbury  
**Crown Castle JDE Job Number:** 715098  
**Crown Castle Order Number:** 614658 Rev. 0

**Engineering Firm Designation:** **TEP Project Number:** 25631.696298

**Site Data:** **150 Mattatuck Heights, Waterbury, New Haven County, CT 06705**  
**Latitude 41° 32' 16.30", Longitude -72° 59' 6.10"**

**Structure Information:** **Tower Height & Type:** 143.0± ft Monopole  
**Mount Elevation:** 100.0 ft  
**Mount Width & Type:** 12.5 ft Platform w/ Support Rail

Tower Engineering Professionals is pleased to submit this "Mount Analysis - Conditional Passing" to determine the structural integrity of T-Mobile's antenna mounting system with proposed appurtenance and equipment addition on the above mentioned supporting tower structure. Analysis of the existing supporting tower structure is to be completed by others and therefore is not part of this analysis. Analysis of the antenna mounting system as a tie-off point for fall protection or rigging is not part of this document.

The purpose of the analysis is to determine acceptability of the mount stress level. Based on our analysis, we have determined the mount stress level to be:

**Platform w/ Support Rail Mount**

**Sufficient Capacity\***

\*Sufficient upon completion of the changes listed in the 'Recommendations' section of this report.

This analysis utilizes an ultimate 3-second gust wind speed of 118 mph as required by the 2018 Connecticut State Building Code. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Structural analysis prepared by: Alex Holcomb / DC

Respectfully submitted by:

Aaron T. Rucker, P.E.  
Structural Division Manager  
919-661-6351  
[arucker@tepgroup.net](mailto:arucker@tepgroup.net)



Electronic Copy

05/03/2022



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### 1) INTRODUCTION

The mount is an existing 12.5-ft 3-Sector Platform w/ Support Rail mount. The mount is installed at the 100.0 ft elevation on the 143.0± ft Monopole.

### 2) ANALYSIS CRITERIA

<b>Building Code:</b>	2018 Connecticut State Building Code
<b>TIA-222 Revision:</b>	TIA-222-H
<b>Risk Category:</b>	II
<b>Ultimate Wind Speed:</b>	118 mph
<b>Exposure Category:</b>	B
<b>Topographic Category at Base:</b>	1.0
<b>Topographic Category at Mount:</b>	1.0
<b>Ice Thickness:</b>	1.0 in
<b>Wind Speed with Ice:</b>	50 mph
<b>Seismic Design Category:</b>	B
<b>Seismic S<sub>s</sub>:</b>	0.195
<b>Seismic S<sub>1</sub>:</b>	0.054
<b>Live Loading Wind Speed:</b>	30 mph
<b>Live Loading at Mid/End-Points:</b>	250 lb
<b>Man Live Loading at Mount Pipes:</b>	500 lb

**Table 1 - Proposed Equipment Configuration**

Mount Centerline (ft)	Antenna Centerline (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Mount / Modification Details
100.0	101.0	3	ERICSSON	AIR 32 B2A/B66AA	Platform w/ Support Rail Mount
		3	ERICSSON	AIR 6419 B41_TMO	
		3	RFS/CELWAVE	APXVAARR24_43-U-NA20	
		3	ERICSSON	RADIO 4449 B71 B85A_T-MOBILE	
		3	ERICSSON	RADIO 4460 B2/B25 B66_TMO	

### 3) ANALYSIS PROCEDURE

**Table 2 - Documents Provided**

Document	Remarks	Reference	Source
Mount Manufacturer Drawings	SitePro	HRK12	TEP
Mount Manufacturer Drawings	Perfect Vision	LPP-ENG-01-R7	TEP
Previous Mount Analysis	Maser Consulting Connecticut	7710555	CCIsites
Loading Application	T-Mobile	Order 614658 Rev. 0	CCIsites

### 3.1) Analysis Method

RISA-3D (Version 17.0.4), a commercially available analysis software package, was used to create a three-dimensional model of the mount and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A and Appendix C.

TEP Mount Analysis Tool, a tool internally developed by TEP using Microsoft Excel, was used to calculate member loading for various load cases. Selected output from the analysis is included in Appendix B.

This analysis was performed in accordance with Crown Castle's ENG-SOW-10208 *Tower Mount Analysis (Revision E)*.

### 3.2) Assumptions

- 1) The mount was built in accordance with the manufacturer's specifications.
- 2) The mount has been maintained in accordance with the manufacturer's specification.
- 3) The configuration of antennas, mounts and other appurtenances are as specified in Table 1. All mount components have been assumed to be in sufficient condition to carry their full design capacity for this analysis. Refer to the issued mapping for any structural and/or maintenance issues found during our site visit if applicable.
- 4) All mount components are in sufficient condition to carry their full design capacity.
- 5) TEP did not analyze the collar mount connection to the pole and assumes it to have sufficient structural capacity to transfer the applied forces from the mount to the tower.
- 6) All material grades used for this analysis, unless verified by mount manufacturer design, were assumed per AISC Table 2-4, 15<sup>th</sup> Edition. See RISA-3D output for confirmation on grades used in this analysis.

This analysis may be affected if any assumptions are not valid or have been made in error. Tower Engineering Professionals should be notified to determine the effect on the structural integrity of the antenna mounting system.

#### 4) ANALYSIS RESULTS

**Table 3 - Mount Component Stresses vs. Capacity (Platform w/ Support Rail Mount)**

Notes	Component	Critical Member	Mount Centerline (ft)	% Capacity	Pass / Fail
1	Face Horizontals	SF1-TH	100.0	17.6	Pass
1	Support Rail	SR-1	100.0	31.4	Pass
1	Support Arm	SA-3	100.0	29.4	Pass
1	Internals	GSI-3B	100.0	48.8	Pass
1	Mount Pipes	MP-2	100.0	59.0	Pass
2	Connection Bolts	-	100.0	21.1	Pass
2	Connection Plate	-	100.0	27.8	Pass

<b>Structure Rating (max from all components) =</b>	<b>59.0%</b>
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Notes:

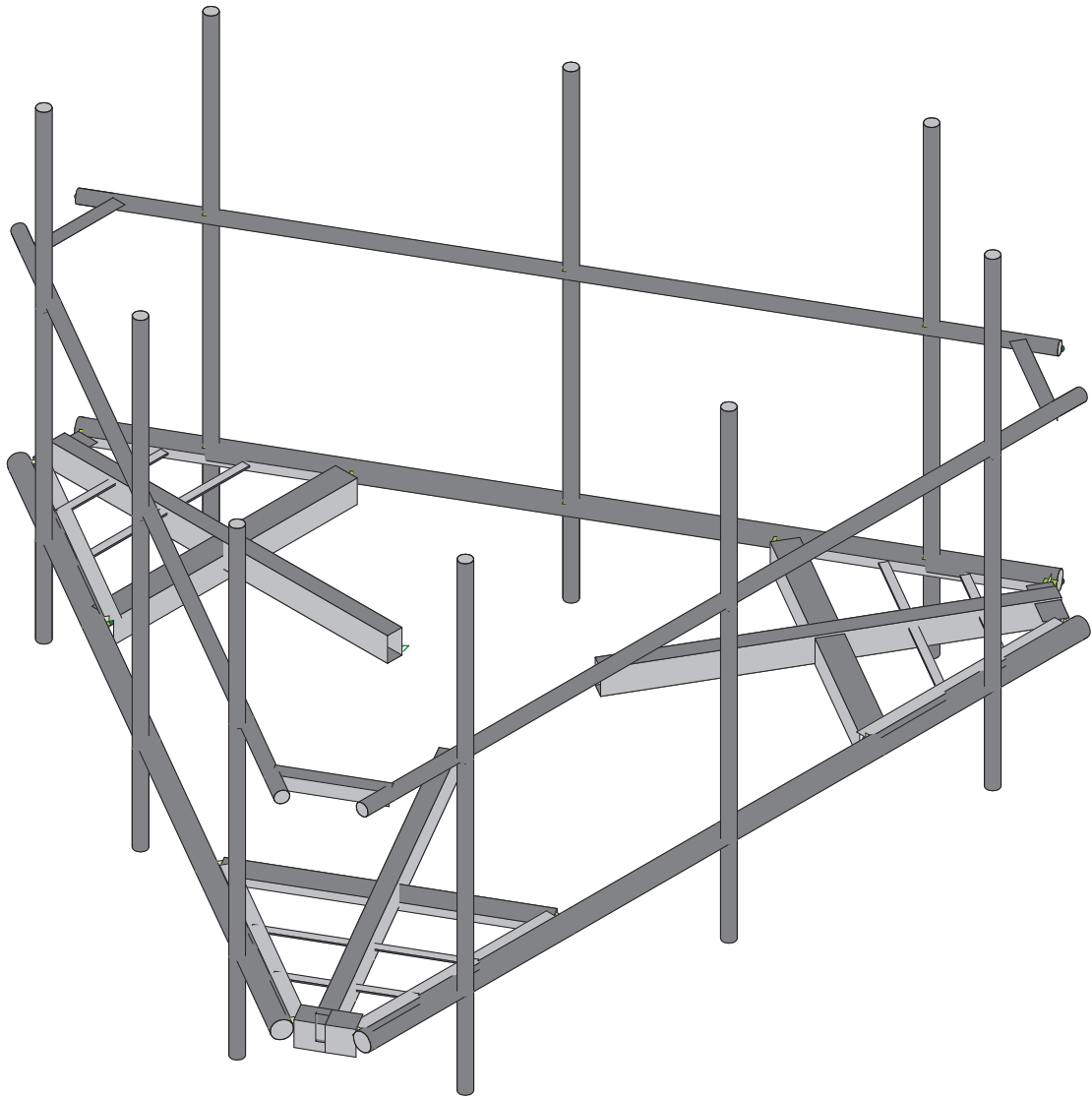
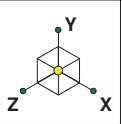
- 1) See additional documentation in "Appendix C - Analysis Output" for calculations supporting the % capacity listed.
- 2) See additional documentation in "Appendix D - Additional Calculations" for calculations supporting the % capacity listed.
- 3) All sectors are typical.

#### 4.1) Recommendations

- 1) If the load differs from that described in Table 1 of this report or the provisions of this analysis are found to be invalid, another structural analysis should be performed.
- 2) The mount and its connection have sufficient capacity to carry the proposed loading configuration. In order for the results of this analysis to be valid, the mount modifications listed below must be completed:
  - a) Install SitePro HRK12 Support rail kit, or approved equivalent, 3'-6" above the face horizontal. Connect all mount pipes using provided hardware connection.



**APPENDIX A**  
**WIRE FRAME AND RENDERED MODELS**



Envelope Only Solution

Tower Engineering Profes...

ARH

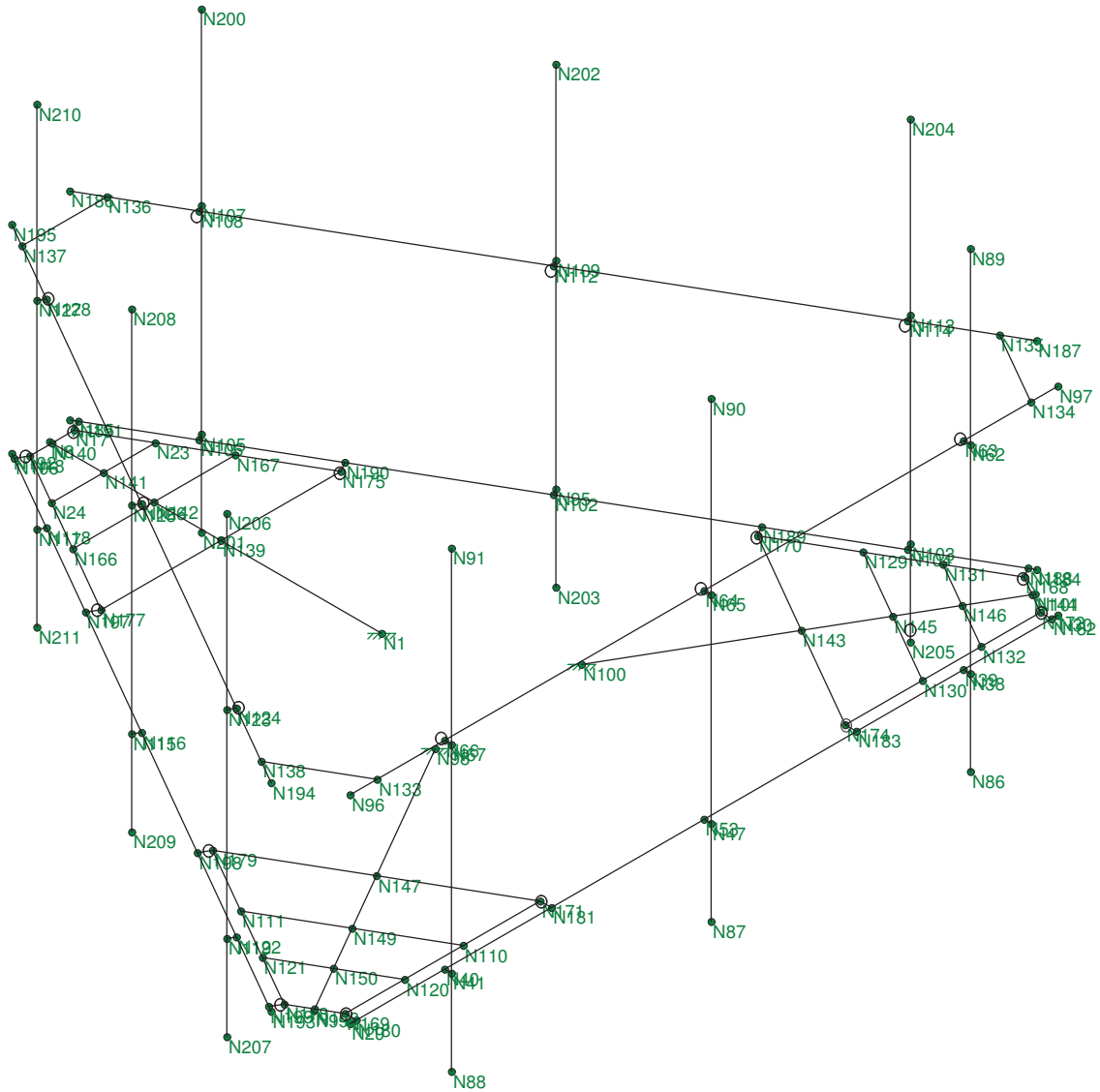
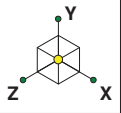
TEP No. 25631.696298

CCI BU No 876317

SK - 1

May 3, 2022 at 12:44 PM

PV-LPP12-HR-B.r3d



Envelope Only Solution

Tower Engineering Profes...

ARH

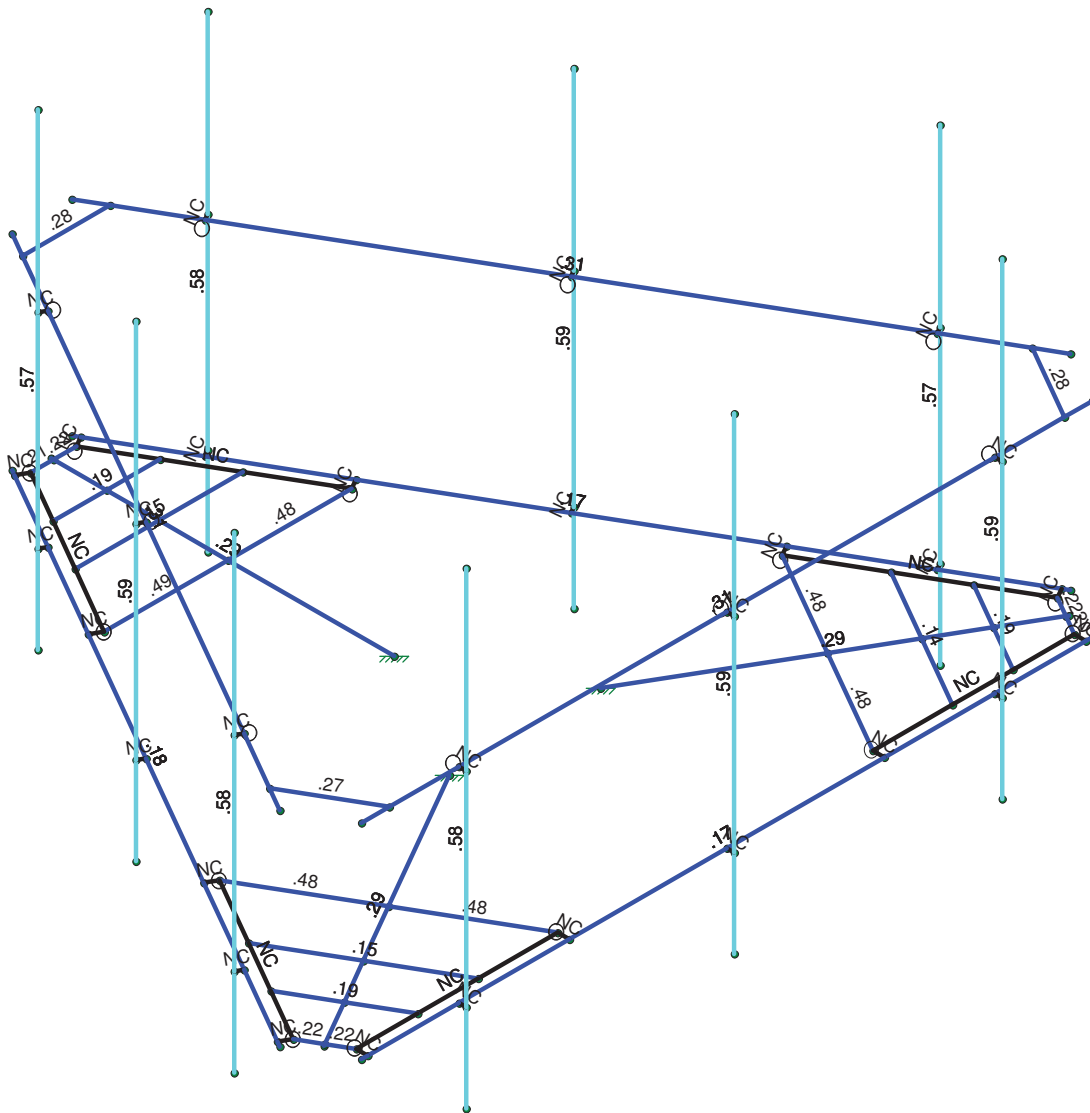
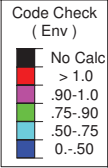
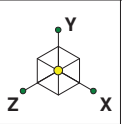
TEP No. 25631.696298

CCI BU No 876317

SK - 2

May 3, 2022 at 12:44 PM

PV-LPP12-HR-B.r3d



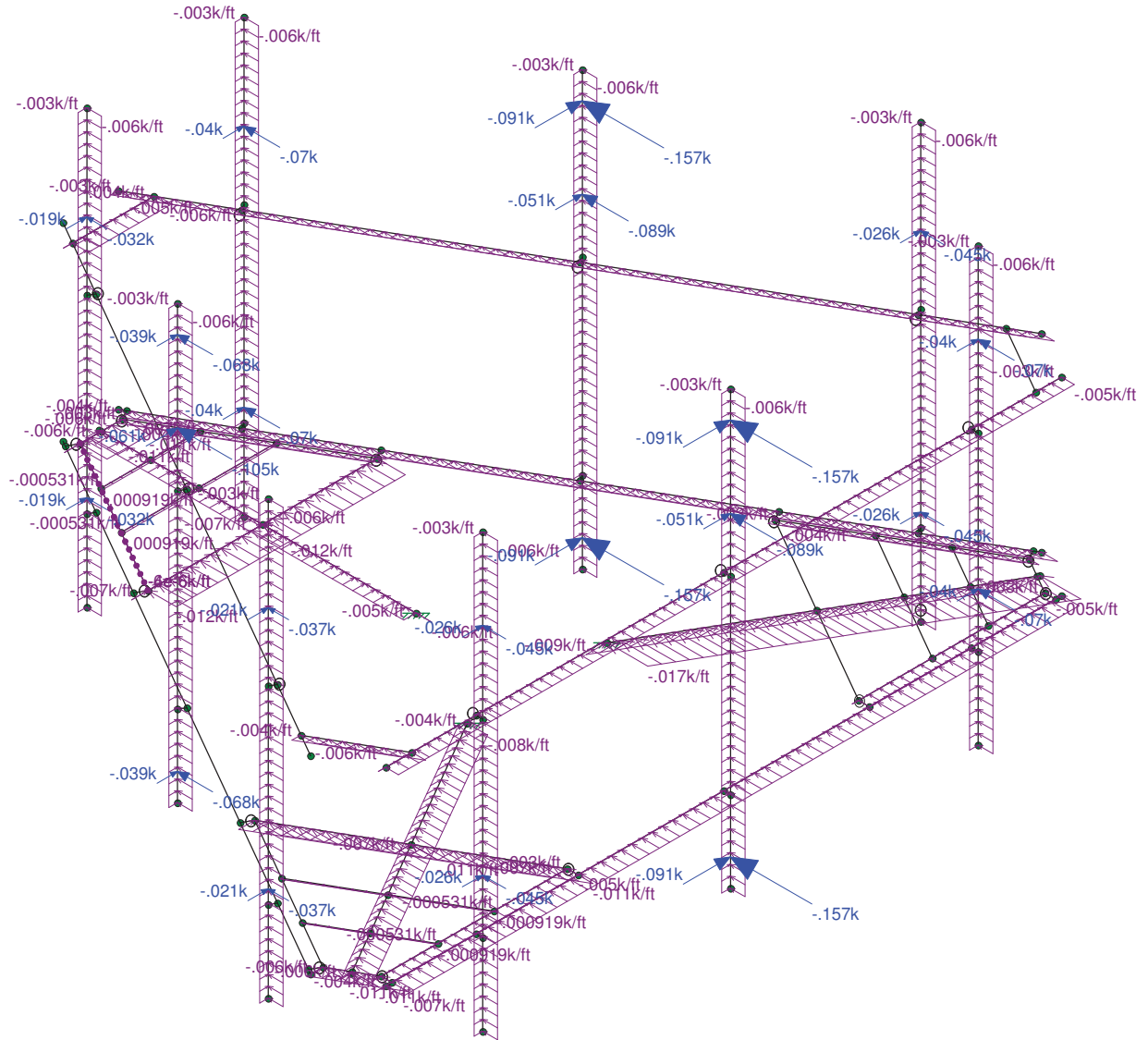
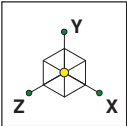
Member Code Checks Displayed (Enveloped)  
Envelope Only Solution

Tower Engineering Profes...	CCI BU No 876317	SK - 3
ARH	CCI BU No 876317	May 3, 2022 at 1:00 PM
TEP No. 25631.696298	CCI BU No 876317	PV-LPP12-HR-B.r3d



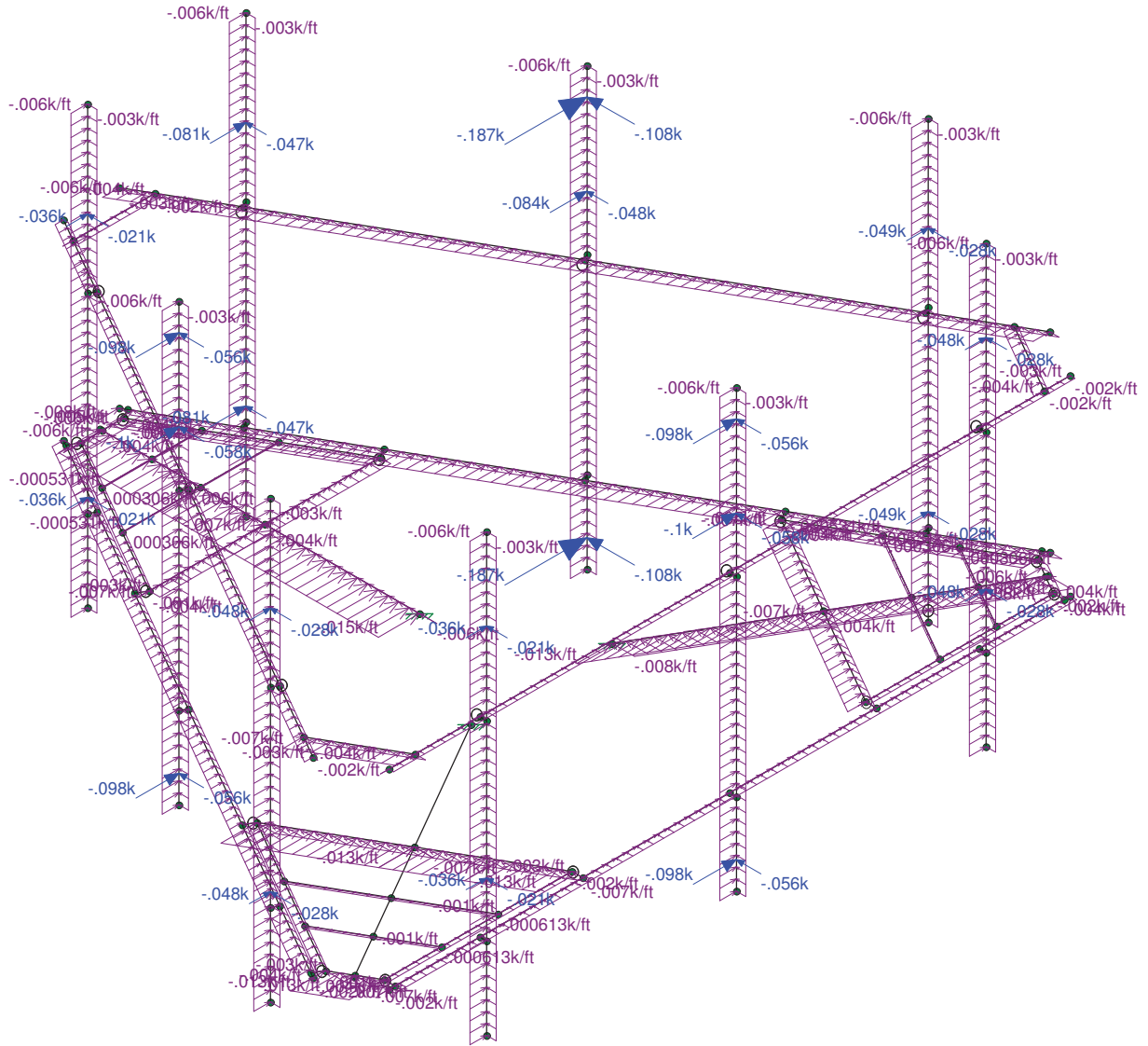
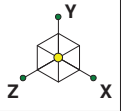






Loads: BLC 3, 30 Wind - No Ice  
Envelope Only Solution

Tower Engineering Profes...	CCI BU No 876317	SK - 6
ARH		May 3, 2022 at 12:46 PM
TEP No. 25631.696298		PV-LPP12-HR-B.r3d



Loads: BLC 5, 60 Wind - No Ice  
Envelope Only Solution

Tower Engineering Profes...

ARH

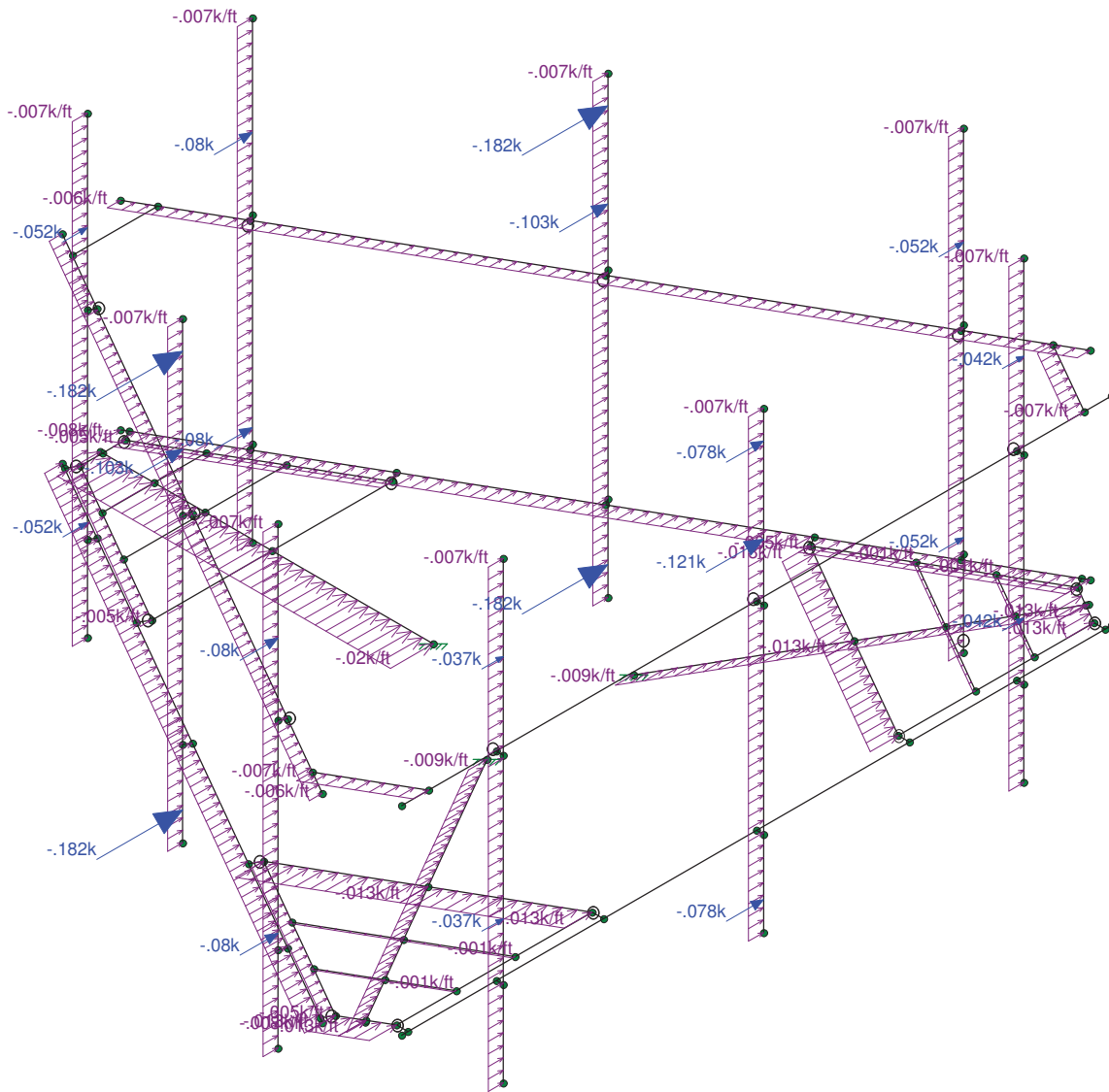
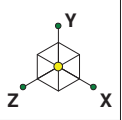
TEP No. 25631.696298

CCI BU No 876317

SK - 7

May 3, 2022 at 12:46 PM

PV-LPP12-HR-B.r3d



Loads: BLC 6, 90 Wind - No Ice  
Envelope Only Solution

Tower Engineering Profes...

ARH

TEP No. 25631.696298

CCI BU No 876317

SK - 8

May 3, 2022 at 12:46 PM

PV-LPP12-HR-B.r3d

**APPENDIX B**  
**SOFTWARE INPUT CALCULATIONS**



Code Revisions:	<b>TIA-222-H</b>	<b>IBC 2018</b>
Tower Type:	<b>Monopole</b>	

Wind Inputs:		
Ult. Wind Velocity:	<b>118.0</b>	mph
Live Load Velocity:	<b>30.0</b>	mph
Ice Wind Velocity:	<b>50.0</b>	mph
Base Ice Thickness:	<b>1.00</b>	inches
Mount Centerline:	<b>100.0</b>	ft
Antenna Centerline:	<b>101.0</b>	ft
Exposure Category:	<b>B</b>	
Topo Category:	<b>1</b>	
Risk Category:	<b>II</b>	
Ground Elevation:	<b>660</b>	ft

Wind Calculations:		
$K_{zt}$ :	<b>1.000</b>	Section 2.6.6
$K_d$ :	0.950	
$K_{z-Mount}$ :	0.988	Section 2.6.5.2
$K_{z-Antenna}$ :	0.991	Section 2.6.5.2
$K_{iz}$ :	1.118	Section 2.6.10
Ice Thickness:	1.118	inches - Section 2.6.10

Without Ice - (psf)	With Ice - (psf)
$(q_z G_h)_{Mount}$ : 32.67	$(q_z G_h)_{Mount}$ : 5.87
$(q_z G_h)_{Antenna}$ : 32.77	$(q_z G_h)_{Antenna}$ : 5.88

Seismic Code Revisions:	<b>TIA-222-H</b>
Seismic Risk Category:	<b>II</b>

Seismic Input		
$S_{DS}$ :	<b>0.208</b>	Design Short Period Spectral Accel.
$I_p$ :	<b>1.0</b>	Importance Factor
$R_p$ :	<b>2.0</b>	Response Modification Factor
$\rho$ :	<b>1.0</b>	
$A_5$ :	<b>1.0</b>	Applification Factor - TIA-222-H Section 2.7.8.1
$S_1$ :	<b>0.054</b>	Spectral Acceleration at a Period of 1 Second

Seismic Design Force			
$C_s$ :	0.104	kips/kip	TIA-H Sec 2.7.7.1.1
$C_{s-min}$ :	0.030	kips/kip	TIA-H Sec 2.7.7.1.1



**CCI BU No. 876317**  
 TEP No. 25631.696298  
 Analysis By: ARH 5/3/2022  
 Checked By: DC 5/3/2022

Antenna Loads are Calculated in Accordance with TIA-222-H

Azimuth is the absolute angle measured clockwise from RISA-3D global X-axis.

MFR	Model	Height (in)	Width (in)	Depth (in)	Wt. (lbs)	Azimuth*	Qty	Shape	Member Label	Distance from start node of the member		
										Location #1 (ft,%)	Location #2 (ft,%)	Location #3 (ft,%)
ERICSSON	AIR 6419 B41_TMO	36.25	20.91	9.02	96.50	0.00	1	Flat	MP-1	1.50	5.50	
RFS/CELWAVE	APXVAARR24_43-U-NA20	95.90	24.00	8.70	128.00	0.00	1	Flat	MP-2	0.50	7.50	
ERICSSON	RADIO 4449 B71 B85A_T-MOBILE	17.91	13.20	10.63	73.21	90.00	1	Flat	MP-2	2.00		
ERICSSON	RADIO 4460 B2/B25 B66_TMO	17.00	15.10	11.90	109.00	90.00	1	Flat	MP-2	2.00		
ERICSSON	AIR 32 B2A/B66AA	56.60	12.90	8.70	172.00	0.00	1	Flat	MP-3	1.50	5.50	
ERICSSON	AIR 6419 B41_TMO	36.25	20.91	9.02	96.50	120.00	1	Flat	MP-4	1.75	6.25	
RFS/CELWAVE	APXVAARR24_43-U-NA20	95.90	24.00	8.70	128.00	120.00	1	Flat	MP-5	0.50	7.50	
ERICSSON	RADIO 4449 B71 B85A_T-MOBILE	17.91	13.20	10.63	73.21	210.00	1	Flat	MP-5	2.00		
ERICSSON	RADIO 4460 B2/B25 B66_TMO	17.00	15.10	11.90	109.00	210.00	1	Flat	MP-5	2.00		
ERICSSON	AIR 32 B2A/B66AA	56.60	12.90	8.70	172.00	120.00	1	Flat	MP-6	1.75	6.25	
							1					
ERICSSON	AIR 6419 B41_TMO	36.25	20.91	9.02	96.50	240.00	1	Flat	MP-7	1.75	6.25	
RFS/CELWAVE	APXVAARR24_43-U-NA20	95.90	24.00	8.70	128.00	240.00	1	Flat	MP-8	0.50	7.50	
ERICSSON	RADIO 4449 B71 B85A_T-MOBILE	17.91	13.20	10.63	73.21	330.00	1	Flat	MP-8	2.00		
ERICSSON	RADIO 4460 B2/B25 B66_TMO	17.00	15.10	11.90	109.00	330.00	1	Flat	MP-8	2.00		
ERICSSON	AIR 32 B2A/B66AA	56.60	12.90	8.70	172.00	240.00	1	Flat	MP-9	1.75	6.25	





Member Forces are Calculated in Accordance with TIA-222-H

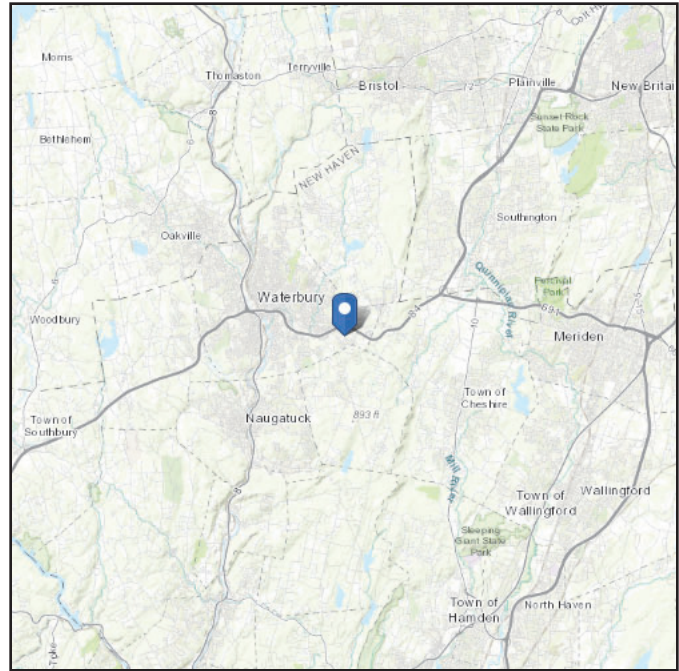
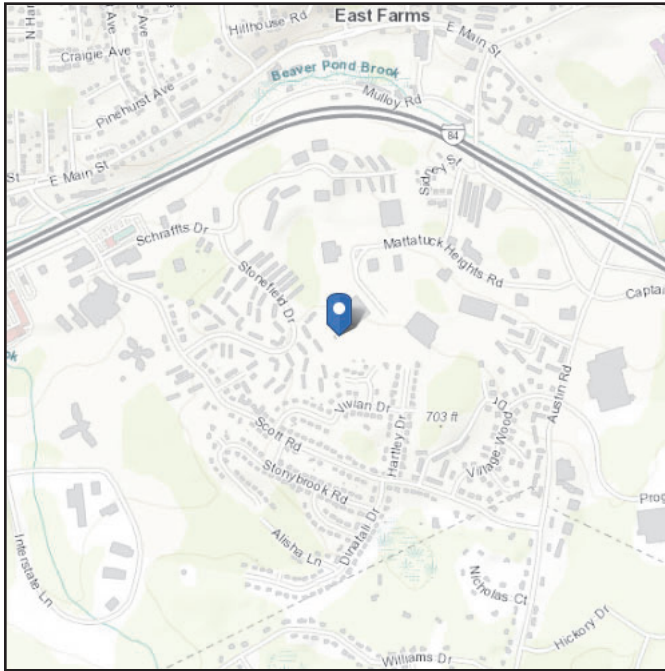
Member Name	Wind Proj. (in)	Length (in)	Shape	θ (°)	Perimeter (in)
CP-1A	5.000	4.74	Flat	-30.00	20.00
CP-1B	5.000	4.74	Flat	-30.00	20.00
CP-2A	5.000	4.74	Flat	30.00	20.00
CP-2B	5.000	4.74	Flat	30.00	20.00
CP-3A	5.000	4.69	Flat	90.00	20.00
CP-3B	5.000	4.69	Flat	90.00	20.00
FFTH	3.500	150.00	Round	90.00	11.00
GSI-1A	4.750	25.41	Flat	-30.00	19.00
GSI-1B	4.750	25.41	Flat	-30.00	19.00
GSI-1C	0.250	34.47	Flat	-30.00	1.00
GSI-1D	0.250	22.06	Flat	-30.00	1.00
GSI-2A	4.750	25.41	Flat	30.00	19.00
GSI-2B	4.750	25.41	Flat	30.00	19.00
GSI-2C	0.250	34.47	Flat	30.00	1.00
GSI-2D	0.250	22.06	Flat	30.00	1.00
GSI-3A	4.750	25.41	Flat	90.00	19.00
GSI-3B	4.750	25.41	Flat	90.00	19.00
GSI-3C	0.250	34.42	Flat	90.00	1.00
GSI-3D	0.250	21.97	Flat	90.00	1.00
INT-1A	1.250	41.34	Flat	90.00	5.00
INT-1B	1.250	41.34	Flat	30.00	5.00
INT-2A	1.250	41.34	Flat	-30.00	5.00
INT-2B	1.250	41.34	Flat	90.00	5.00
INT-3A	1.250	41.34	Flat	30.08	5.00
INT-3B	1.250	41.34	Flat	-30.08	5.00
MP-1	2.375	96.00	Round		7.46
MP-2	2.375	96.00	Round		7.46
MP-3	2.375	96.00	Round		7.46
MP-4	2.375	96.00	Round		7.46
MP-5	2.375	96.00	Round		7.46
MP-6	2.375	96.00	Round		7.46
MP-7	2.375	96.00	Round		7.46
MP-8	2.375	96.00	Round		7.46
MP-9	2.375	96.00	Round		7.46
SA-1	5.000	70.37	Flat	60.00	20.00
SA-2	5.000	70.37	Flat	-60.00	20.00
SA-3	5.000	70.37	Flat	0.00	20.00
SF1-TH	3.500	150.00	Round	-30.00	11.00
SF2-TH	3.500	150.00	Round	30.00	11.00
SR-1	2.375	150.00	Round	90.00	7.46
SR-2	2.375	150.00	Round	-30.00	7.46
SR-3	2.375	150.00	Round	30.00	7.46
SRCP-1	2.500	18.01	Flat	-30.00	10.00
SRCP-2	2.500	18.01	Flat	30.00	10.00
SRCP-3	2.500	18.01	Flat	90.00	10.00

# ASCE 7 Hazards Report

**Address:**  
No Address at This Location

**Standard:** ASCE/SEI 7-16  
**Risk Category:** II  
**Soil Class:** D - Default (see Section 11.4.3)

**Elevation:** 660.21 ft (NAVD 88)  
**Latitude:** 41.537861  
**Longitude:** -72.985028



## Wind

### Results:

Wind Speed	118 Vmph
10-year MRI	75 Vmph
25-year MRI	84 Vmph
50-year MRI	90 Vmph
100-year MRI	97 Vmph

Data Source: ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2

Date Accessed: Mon May 02 2022

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

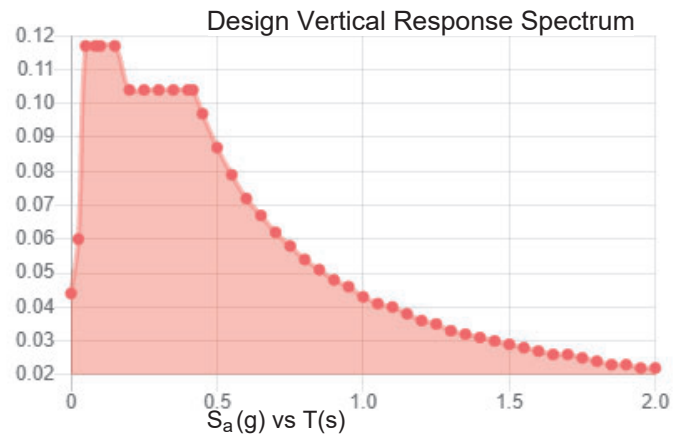
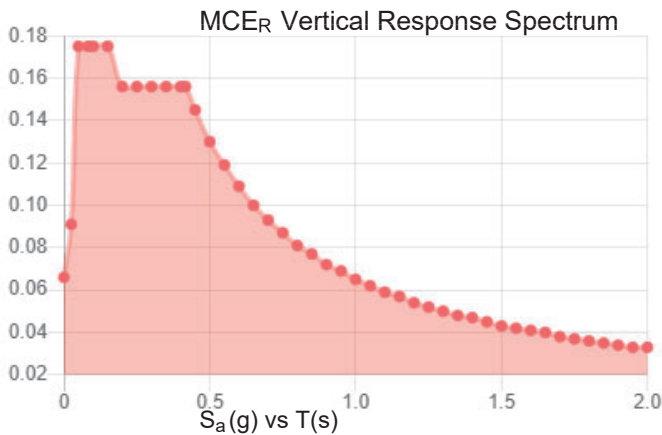
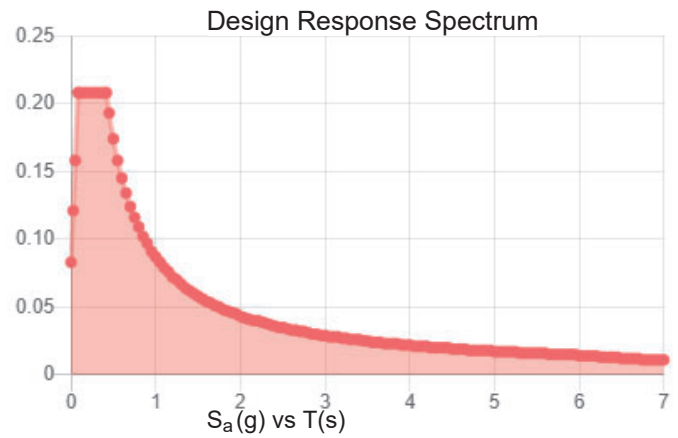
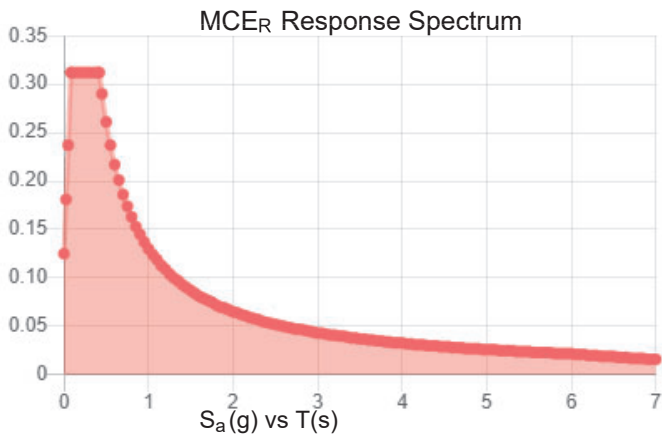
Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings need not be protected against wind-borne debris.

**Site Soil Class:** D - Default (see Section 11.4.3)

**Results:**

$S_s$ :	0.195	$S_{D1}$ :	0.087
$S_1$ :	0.054	$T_L$ :	6
$F_a$ :	1.6	PGA :	0.108
$F_v$ :	2.4	PGA <sub>M</sub> :	0.171
$S_{MS}$ :	0.312	$F_{PGA}$ :	1.585
$S_{M1}$ :	0.13	$I_e$ :	1
$S_{DS}$ :	0.208	$C_v$ :	0.7

**Seismic Design Category** B



**Data Accessed:** Mon May 02 2022

**Date Source:**

**USGS Seismic Design Maps based on ASCE/SEI 7-16 and ASCE/SEI 7-16 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-16 Ch. 21 are available from USGS.**

## Ice

---

### Results:

Ice Thickness: 1.00 in.  
Concurrent Temperature: 15 F  
Gust Speed 50 mph

**Data Source:** Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8

**Date Accessed:** Mon May 02 2022

Ice thicknesses on structures in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 500-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

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The ASCE 7 Hazard Tool is provided for your convenience, for informational purposes only, and is provided “as is” and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE 7 standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

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**APPENDIX C**  
**SOFTWARE ANALYSIS OUTPUT**





Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
 Job Number : TEP No. 25631.696298  
 Model Name : CCI BU No 876317

May 3, 2022  
 1:00 PM  
 Checked By: DC

**(Global) Model Settings**

Display Sections for Member Calcs	5
Max Internal Sections for Member Calcs	97
Include Shear Deformation?	Yes
Increase Nailing Capacity for Wind?	Yes
Include Warping?	Yes
Trans Load Bwn Intersecting Wood Wall?	Yes
Area Load Mesh (in^2)	144
Merge Tolerance (in)	.12
P-Delta Analysis Tolerance	0.50%
Include P-Delta for Walls?	Yes
Automatically Iterate Stiffness for Walls?	Yes
Max Iterations for Wall Stiffness	3
Gravity Acceleration (ft/sec^2)	32.2
Wall Mesh Size (in)	24
Eigensolution Convergence Tol. (1.E-)	4
Vertical Axis	Y
Global Member Orientation Plane	XZ
Static Solver	Sparse Accelerated
Dynamic Solver	Accelerated Solver
Hot Rolled Steel Code	AISC 15th(360-16): LRFD
Adjust Stiffness?	No
RISAConnection Code	None
Cold Formed Steel Code	None
Wood Code	None
Wood Temperature	< 100F
Concrete Code	None
Masonry Code	None
Aluminum Code	None - Building
Stainless Steel Code	None
Number of Shear Regions	4
Region Spacing Increment (in)	4
Biaxial Column Method	Exact Integration
Parame Beta Factor (PCA)	.65
Concrete Stress Block	Rectangular
Use Cracked Sections?	Yes
Use Cracked Sections Slab?	No
Bad Framing Warnings?	No
Unused Force Warnings?	Yes
Min 1 Bar Diam. Spacing?	No
Concrete Rebar Set	REBAR_SET ASTM A615
Min % Steel for Column	1
Max % Steel for Column	8



Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
 Job Number : TEP No. 25631.696298  
 Model Name : CCI BU No 876317

May 3, 2022  
 1:00 PM  
 Checked By: DC

**(Global) Model Settings, Continued**

Seismic Code	ASCE 7-10
Seismic Base Elevation (ft)	Not Entered
Add Base Weight?	Yes
Ct X	.02
Ct Z	.02
T X (sec)	Not Entered
T Z (sec)	Not Entered
R X	3
R Z	3
Ct Exp. X	.75
Ct Exp. Z	.75
SD1	1
SDS	1
S1	1
T1 (sec)	5
Risk Cat	I or II
Drift Cat	Other
Om Z	1
Om X	1
Cd Z	4
Cd X	4
Rho Z	1
Rho X	1

**Hot Rolled Steel Properties**

	Label	F (ksi)	G (ksi)	Nu	Therm /1...	Density(k/ft...	Yield(ksi)	Rv	Fu(ksi)	Rt
1	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	.3	.65	.527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	.3	.65	.527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	.3	.65	.49	35	1.6	60	1.2
7	A1085	29000	11154	.3	.65	.49	50	1.4	65	1.3

**Cold Formed Steel Properties**

	Label	F (ksi)	G (ksi)	Nu	Therm (/1E5 F)	Density(k/ft^3)	Yield(ksi)	Fu(ksi)
1	A653 SS Gr33	29500	11346	.3	.65	.49	33	45
2	A653 SS Gr50/1	29500	11346	.3	.65	.49	50	65

**Hot Rolled Steel Section Sets**

	Label	Shape	Type	Design L...	Material	Design ...	A [in2]	Iy [in4]	Izz [in4]	J [in4]
1	Support Arm	HSS5X3X6	None	None	A500 Gr.B Rect	Typical	4.78	6.25	14.1	14.9
2	Platform	PL 1.5x1/4	None	None	A36 Gr.36	Typical	.375	.002	.07	.007
3	Platform Angle	BPL 2.375x1.25x1/4	None	None	A36 Gr.36	Typical	.844	.093	.479	.016
4	Platform End Angle	BPL5x4x1/4	None	None	A36 Gr.36	Typical	2.188	3.248	5.631	.044
5	Face Horizontal	PIPE 3.0	None	None	A500 Gr.B RND	Typical	2.07	2.85	2.85	5.69
6	Support Rail Plate	1/2 5x2.5x4	None	None	A36 Gr.36	Typical	1.19	.692	.692	.026
7	Support Rail	PIPE 2.0	None	None	A53 Gr.B	Typical	1.02	.627	.627	1.25
8	Mount Pipe	PIPE 2.0	None	None	A53 Gr.B	Typical	1.02	.627	.627	1.25
9	Platform Back An...	BPL4.75x4.5x1/4	None	None	A36 Gr.36	Typical	2.25	4.444	5.077	.045



Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
 Job Number : TEP No. 25631.696298  
 Model Name : CCI BU No 876317

May 3, 2022  
 1:00 PM  
 Checked By: DC

**Cold Formed Steel Section Sets**

Label	Shape	Type	Design List	Material	Design Rules	A [in2]	Iy [in4]	Izz [in4]	J [in4]	
1	CF1A	162T125-18	Beam	None	A653 SS Gr33	Typical	.078	.013	.042	9e-6

**Material Takeoff**

Material	Size	Pieces	Length[ft]	Weight[K]
1	General			
2	RIGID	30	4.6	0
3	Total General	30	4.6	0
4				
5	Hot Rolled Steel			
6	A36 Gr.36	BPL2.375x1.25x1/4	6	20.7
7	A36 Gr.36	BPL4.75x4.5x1/4	6	12.7
8	A36 Gr.36	BPL5x4x1/4	6	2.4
9	A36 Gr.36	L2.5x2.5x4	3	4.5
10	A36 Gr.36	PL1.5x1/4	6	14.1
11	A500 Gr.B Rect	HSS3X3X6	3	17.6
12	A500 Gr.B RND	PIPE 3.0	3	37.5
13	A53 Gr.B	PIPE 2.0	12	109.5
14	Total HR Steel	45	219	1.182

**Joint Boundary Conditions**

Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot.[k-ft/rad]	Y Rot.[k-ft/rad]	Z Rot.[k-ft/rad]
1	N1	Reaction	Reaction	Reaction	Reaction	Reaction
2	N98	Reaction	Reaction	Reaction	Reaction	Reaction
3	N100	Reaction	Reaction	Reaction	Reaction	Reaction

**Member Primary Data**

Label	I Joint	J Joint	K Joint	Rotate[de]	Section/Shape	Type	Design List	Material	Design Bul.
1	CP-1A	N172	N144	180	Platform End Angle	None	None	A36 Gr.36	Typical
2	CP-1B	N144	N168	180	Platform End Angle	None	None	A36 Gr.36	Typical
3	CP-2A	N178	N148	180	Platform End Angle	None	None	A36 Gr.36	Typical
4	CP-2B	N148	N169	180	Platform End Angle	None	None	A36 Gr.36	Typical
5	CP-3A	N17	N140	180	Platform End Angle	None	None	A36 Gr.36	Typical
6	CP-3B	N140	N18	180	Platform End Angle	None	None	A36 Gr.36	Typical
7	FFTH	N29	N30		Face Horizontal	None	None	A300 Gr.	Typical
8	GSI-1A	N143	N174	180	Platform Back Angle	None	None	A36 Gr.36	Typical
9	GSI-1B	N170	N143	180	Platform Back Angle	None	None	A36 Gr.36	Typical
10	GSI-1C	N129	N130	90	Platform	None	None	A36 Gr.36	Typical
11	GSI-1D	N131	N132	90	Platform	None	None	A36 Gr.36	Typical
12	GSI-2A	N147	N179	180	Platform Back Angle	None	None	A36 Gr.36	Typical
13	GSI-2B	N171	N147	180	Platform Back Angle	None	None	A36 Gr.36	Typical
14	GSI-2C	N110	N111	90	Platform	None	None	A36 Gr.36	Typical
15	GSI-2D	N120	N121	90	Platform	None	None	A36 Gr.36	Typical
16	GSI-3A	N139	N175	180	Platform Back Angle	None	None	A36 Gr.36	Typical
17	GSI-3B	N177	N139	180	Platform Back Angle	None	None	A36 Gr.36	Typical
18	GSI-3C	N166	N167	90	Platform	None	None	A36 Gr.36	Typical
19	GSI-3D	N24	N23	90	Platform	None	None	A36 Gr.36	Typical
20	INT-1A	N172	N174	90	Platform Angle	None	None	A36 Gr.36	Typical
21	INT-1B	N170	N168	90	Platform Angle	None	None	A36 Gr.36	Typical
22	INT-2A	N178	N179	90	Platform Angle	None	None	A36 Gr.36	Typical
23	INT-2B	N171	N169	90	Platform Angle	None	None	A36 Gr.36	Typical
24	INT-3A	N17	N175	90	Platform Angle	None	None	A36 Gr.36	Typical



Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
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**Member Primary Data (Continued)**

Label	I Joint	J Joint	K Joint	Rotate[de]	Section/Shape	Type	Design List	Material	Design Bul.
25	INT-3B	N177	N18	90	Platform Angle	None	None	A36 Gr.36	Typical
26	M24	N174	N183		RIGID	None	None	RIGID	Typical
27	M25	N172	N182		RIGID	None	None	RIGID	Typical
28	M26	N171	N181		RIGID	None	None	RIGID	Typical
29	M29	N169	N180		RIGID	None	None	RIGID	Typical
30	M34	N47	N53		RIGID	None	None	RIGID	Typical
31	M35	N41	N40		RIGID	None	None	RIGID	Typical
32	M42	N38	N39		RIGID	None	None	RIGID	Typical
33	M52	N62	N63		RIGID	None	None	RIGID	Typical
34	M53	N65	N64		RIGID	None	None	RIGID	Typical
35	M54	N67	N66		RIGID	None	None	RIGID	Typical
36	M61	N85	N102		RIGID	None	None	RIGID	Typical
37	M62	N103	N104		RIGID	None	None	RIGID	Typical
38	M63	N105	N106		RIGID	None	None	RIGID	Typical
39	M68	N168	N188		RIGID	None	None	RIGID	Typical
40	M69	N170	N189		RIGID	None	None	RIGID	Typical
41	M70	N175	N190		RIGID	None	None	RIGID	Typical
42	M71	N17	N191		RIGID	None	None	RIGID	Typical
43	M72	N18	N196		RIGID	None	None	RIGID	Typical
44	M73	N177	N197		RIGID	None	None	RIGID	Typical
45	M74	N179	N198		RIGID	None	None	RIGID	Typical
46	M75	N178	N199		RIGID	None	None	RIGID	Typical
47	M76	N107	N108		RIGID	None	None	RIGID	Typical
48	M77	N109	N112		RIGID	None	None	RIGID	Typical
49	M78	N113	N114		RIGID	None	None	RIGID	Typical
50	M79	N115	N116		RIGID	None	None	RIGID	Typical
51	M80	N117	N118		RIGID	None	None	RIGID	Typical
52	M81	N119	N122		RIGID	None	None	RIGID	Typical
53	M82	N123	N124		RIGID	None	None	RIGID	Typical
54	M83	N125	N126		RIGID	None	None	RIGID	Typical
55	M84	N127	N128		RIGID	None	None	RIGID	Typical
56	MP-1	N89	N86		Mount Pipe	None	None	A53 Gr.B	Typical
57	MP-2	N90	N87		Mount Pipe	None	None	A53 Gr.B	Typical
58	MP-3	N91	N88		Mount Pipe	None	None	A53 Gr.B	Typical
59	MP-4	N206	N207		Mount Pipe	None	None	A53 Gr.B	Typical
60	MP-5	N208	N209		Mount Pipe	None	None	A53 Gr.B	Typical
61	MP-6	N210	N211		Mount Pipe	None	None	A53 Gr.B	Typical
62	MP-7	N200	N201		Mount Pipe	None	None	A53 Gr.B	Typical
63	MP-8	N202	N203		Mount Pipe	None	None	A53 Gr.B	Typical
64	MP-9	N204	N205		Mount Pipe	None	None	A53 Gr.B	Typical
65	SA-1	N100	N101		Support Arm	None	None	A500 Gr.	Typical
66	SA-2	N98	N99		Support Arm	None	None	A500 Gr.	Typical
67	SA-3	N1	N8		Support Arm	None	None	A500 Gr.	Typical
68	SF1-TH	N193	N192		Face Horizontal	None	None	A500 Gr.	Typical
69	SF2-TH	N185	N184		Face Horizontal	None	None	A500 Gr.	Typical
70	SR-1	N97	N96		Support Rail	None	None	A53 Gr.B	Typical
71	SR-2	N194	N195		Support Rail	None	None	A53 Gr.B	Typical
72	SR-3	N186	N187		Support Rail	None	None	A53 Gr.B	Typical
73	SRCP-1	N134	N135	180	Support Rail Plate	None	None	A36 Gr.36	Typical
74	SRCP-2	N138	N133	180	Support Rail Plate	None	None	A36 Gr.36	Typical
75	SRCP-3	N136	N137	180	Support Rail Plate	None	None	A36 Gr.36	Typical



Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
 Job Number : TEP No. 25631.696298  
 Model Name : CCI BU No 876317

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**Member Advanced Data**

Label	I Release	J Release	I Offset(in)	J Offset(in)	T/C Only	Physical	Defl Rat.	Analysis	Inactive	Seismic
1	CP-1A					Yes	** NA **			None
2	CP-1B					Yes	** NA **			None
3	CP-2A					Yes	** NA **			None
4	CP-2B					Yes	** NA **			None
5	CP-3A					Yes	** NA **			None
6	CP-3B					Yes	** NA **			None
7	FFTH					Yes	** NA **			None
8	GSI-1A					Yes	** NA **			None
9	GSI-1B					Yes	** NA **			None
10	GSI-1C					Yes	** NA **			None
11	GSI-1D					Yes	** NA **			None
12	GSI-2A					Yes	** NA **			None
13	GSI-2B					Yes	** NA **			None
14	GSI-2C					Yes	** NA **			None
15	GSI-2D					Yes	** NA **			None
16	GSI-3A					Yes	** NA **			None
17	GSI-3B					Yes	** NA **			None
18	GSI-3C					Yes	** NA **			None
19	GSI-3D					Yes	** NA **			None
20	INT-1A					Yes	** NA **		Exclude	None
21	INT-1B					Yes	** NA **		Exclude	None
22	INT-2A					Yes	** NA **		Exclude	None
23	INT-2B					Yes	** NA **		Exclude	None
24	INT-3A					Yes	** NA **		Exclude	None
25	INT-3B					Yes	** NA **		Exclude	None
26	M24		OOOXOO			Yes	** NA **			None
27	M25		OOOXOO			Yes	** NA **			None
28	M26		OOOXOO			Yes	** NA **			None
29	M29		OOOXOO			Yes	** NA **			None
30	M34		OOOXOO			Yes	** NA **			None
31	M35					Yes	** NA **			None
32	M42					Yes	** NA **			None
33	M52	OOOXOX				Yes	** NA **			None
34	M53	OOOXOX				Yes	** NA **			None
35	M54	OOOXOX				Yes	** NA **			None
36	M61					Yes	** NA **			None
37	M62					Yes	** NA **			None
38	M63					Yes	** NA **			None
39	M68		OOOXOO			Yes	** NA **			None
40	M69		OOOXOO			Yes	** NA **			None
41	M70		OOOXOO			Yes	** NA **			None
42	M71		OOOXOO			Yes	** NA **			None
43	M72		OOOXOO			Yes	** NA **			None
44	M73		OOOXOO			Yes	** NA **			None
45	M74		OOOXOO			Yes	** NA **			None
46	M75		OOOXOO			Yes	** NA **			None
47	M76	OOOXOX				Yes	** NA **			None
48	M77	OOOXOX				Yes	** NA **			None
49	M78	OOOXOX				Yes	** NA **			None
50	M79					Yes	** NA **			None
51	M80					Yes	** NA **			None
52	M81					Yes	** NA **			None
53	M82	OOOXOX				Yes	** NA **			None
54	M83	OOOXOX				Yes	** NA **			None
55	M84	OOOXOX				Yes	** NA **			None
56	MP-1					Yes	** NA **			None
57	MP-2					Yes	** NA **			None



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**Member Advanced Data (Continued)**

Label	I Release	J Release	I Offset(in)	J Offset(in)	T/C Only	Physical	Defl Rat.	Analysis	Inactive	Seismic
58	MP-3					Yes	** NA **			None
59	MP-4					Yes	** NA **			None
60	MP-5					Yes	** NA **			None
61	MP-6					Yes	** NA **			None
62	MP-7					Yes	** NA **			None
63	MP-8					Yes	** NA **			None
64	MP-9					Yes	** NA **			None
65	SA-1					Yes	** NA **			None
66	SA-2					Yes	** NA **			None
67	SA-3					Yes	** NA **			None
68	SF1-1H					Yes	** NA **			None
69	SF2-1H					Yes	** NA **			None
70	SR-1					Yes	** NA **			None
71	SR-2					Yes	** NA **			None
72	SR-3					Yes	** NA **			None
73	SRCP-1					Yes	** NA **			None
74	SRCP-2					Yes	** NA **			None
75	SRCP-3					Yes	** NA **			None

**Hot Rolled Steel Design Parameters**

Label	Shape	Length(ft)	Lbyy(ft)	Lbzz(ft)	Lcomp.top(ft)	Lcomp.bot(ft)	L-torqu	Kyy	Kzz	Cb	Function
1	CP-1A	Platform En.	.395					.8	.8		Lateral
2	CP-1B	Platform En.	.395					.8	.8		Lateral
3	CP-2A	Platform En.	.395					.8	.8		Lateral
4	CP-2B	Platform En.	.395					.8	.8		Lateral
5	CP-3A	Platform En.	.391					.8	.8		Lateral
6	CP-3B	Platform En.	.391					.8	.8		Lateral
7	FFTH	Face Horizo.	12.5	5.387				2.1	2.1		Lateral
8	GSI-1A	Platform Ba.	2.117					.8	.8		Lateral
9	GSI-1B	Platform Ba.	2.117					.8	.8		Lateral
10	GSI-1C	Platform	2.873	1.436	1.436			.65	.65		Lateral
11	GSI-1D	Platform	1.838	.919	.919			.65	.65		Lateral
12	GSI-2A	Platform Ba.	2.117					.8	.8		Lateral
13	GSI-2B	Platform Ba.	2.117					.8	.8		Lateral
14	GSI-2C	Platform	2.873	1.436	1.436			.65	.65		Lateral
15	GSI-2D	Platform	1.838	.919	.919			.65	.65		Lateral
16	GSI-3A	Platform Ba.	2.117					.8	.8		Lateral
17	GSI-3B	Platform Ba.	2.117					.8	.8		Lateral
18	GSI-3C	Platform	2.869	1.436	1.436			.65	.65		Lateral
19	GSI-3D	Platform	1.831	.919	.919			.65	.65		Lateral
20	INT-1A	Platform An.	3.445		1.36			.65	.65		Lateral
21	INT-1B	Platform An.	3.445		1.36			.65	.65		Lateral
22	INT-2A	Platform An.	3.445		1.36			.65	.65		Lateral
23	INT-2B	Platform An.	3.445		1.36			.65	.65		Lateral
24	INT-3A	Platform An.	3.445		1.36			.65	.65		Lateral
25	INT-3B	Platform An.	3.445		1.36			.65	.65		Lateral
26	MP-1	Mount Pipe	8	Segment	Segment			2.1	2.1		Lateral
27	MP-2	Mount Pipe	8	Segment	Segment			2.1	2.1		Lateral
28	MP-3	Mount Pipe	8	Segment	Segment			2.1	2.1		Lateral
29	MP-4	Mount Pipe	8	Segment	Segment			2.1	2.1		Lateral
30	MP-5	Mount Pipe	8	Segment	Segment			2.1	2.1		Lateral
31	MP-6	Mount Pipe	8	Segment	Segment			2.1	2.1		Lateral
32	MP-7	Mount Pipe	8	Segment	Segment			2.1	2.1		Lateral
33	MP-8	Mount Pipe	8	Segment	Segment			2.1	2.1		Lateral
34	MP-9	Mount Pipe	8	Segment	Segment			2.1	2.1		Lateral



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**Hot Rolled Steel Design Parameters (Continued)**

Label	Shape	Length(ft)	Lbwy(ft)	Lbzz(ft)	Lcomp top(ft)	Lcomp bot(ft)	L-torou...	Kyy	Kzz	Cb	Function
35	SA-1	Support Arm	5.864	2.84				2.1	2.1		Lateral
36	SA-2	Support Arm	5.864	2.84				2.1	2.1		Lateral
37	SA-3	Support Arm	5.864	2.84				2.1	2.1		Lateral
38	SF1-TH	Face Horiz.	12.5	5.387				2.1	2.1		Lateral
39	SF2-TH	Face Horiz.	12.5	5.387				2.1	2.1		Lateral
40	SR-1	Support Rail	12.5					2.1	2.1		Lateral
41	SR-2	Support Rail	12.5					2.1	2.1		Lateral
42	SR-3	Support Rail	12.5					2.1	2.1		Lateral
43	SRCP-1	Support Rail	1.501					.65	.65		Lateral
44	SRCP-2	Support Rail	1.501					.65	.65		Lateral
45	SRCP-3	Support Rail	1.501					.65	.65		Lateral

**Cold Formed Steel Design Parameters**

Label	Shape	Lengt...	Lbwy(ft)	Lbzz(ft)	Lcomp to...	Lcomp b...	Kyy	Kzz	cm-vy	cm-zz	Cb	R	y swayz	swayz
No Data to Print ...														

**Basic Load Cases**

BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Me...	Surface(P...
1 Dead	None		-1			24		3
2 0 Wind - No Ice	None					24	45	
3 30 Wind - No Ice	None					48	90	
4 45 Wind - No Ice	None					48	90	
5 60 Wind - No Ice	None					48	90	
6 90 Wind - No Ice	None					24	45	
7 120 Wind - No Ice	None					48	90	
8 135 Wind - No Ice	None					48	90	
9 150 Wind - No Ice	None					48	90	
10 180 Wind - No Ice	None					24	45	
11 210 Wind - No Ice	None					48	90	
12 225 Wind - No Ice	None					48	90	
13 240 Wind - No Ice	None					48	90	
14 270 Wind - No Ice	None					24	45	
15 300 Wind - No Ice	None					48	90	
16 315 Wind - No Ice	None					48	90	
17 330 Wind - No Ice	None					48	90	
18 Ice Weight	None					24	45	3
19 0 Wind - Ice	None					24	45	
20 30 Wind - Ice	None					48	90	
21 45 Wind - Ice	None					48	90	
22 60 Wind - Ice	None					48	90	
23 90 Wind - Ice	None					24	45	
24 120 Wind - Ice	None					48	90	
25 135 Wind - Ice	None					48	90	
26 150 Wind - Ice	None					48	90	
27 180 Wind - Ice	None					24	45	
28 210 Wind - Ice	None					48	90	
29 225 Wind - Ice	None					48	90	
30 240 Wind - Ice	None					48	90	
31 270 Wind - Ice	None					24	45	
32 300 Wind - Ice	None					48	90	
33 315 Wind - Ice	None					48	90	
34 330 Wind - Ice	None					48	90	
35 Lm	None					1		
36 Lv	None					1		



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**Basic Load Cases (Continued)**

BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Me...	Surface(P...
37 Seismic Load X	ELX	-1				24		
38 Seismic Load Z	ELZ			-1		24		
39 BLC 1 Transient Area...	None						61	
40 BLC 18 Transient Are...	None						61	

**Load Combinations**

Description	So	PDelta	S...	BLCFac	BLCFac	BLCFac	BLCFac	BLCFac	BLCFac	BLCFac	BLCFac	BLCFac	BLCFac	BLCFac	BLCFac
1 1.4D	Yes	Y		1	1	1	1	1	1	1	1	1	1	1	1
2 0.9D+1.0 0-Wind	Yes	Y		1	.9	2	1								
3 0.9D+1.0 30-Wi...	Yes	Y		1	.9	3	1								
4 0.9D+1.0 45-Wi...	Yes	Y		1	.9	4	1								
5 0.9D+1.0 60-Wi...	Yes	Y		1	.9	5	1								
6 0.9D+1.0 90-Wi...	Yes	Y		1	.9	6	1								
7 0.9D+1.0 120...	Yes	Y		1	.9	7	1								
8 0.9D+1.0 135...	Yes	Y		1	.9	8	1								
9 0.9D+1.0 150...	Yes	Y		1	.9	9	1								
10 0.9D+1.0 180...	Yes	Y		1	.9	10	1								
11 0.9D+1.0 210...	Yes	Y		1	.9	11	1								
12 0.9D+1.0 225...	Yes	Y		1	.9	12	1								
13 0.9D+1.0 240...	Yes	Y		1	.9	13	1								
14 0.9D+1.0 270...	Yes	Y		1	.9	14	1								
15 0.9D+1.0 300...	Yes	Y		1	.9	15	1								
16 0.9D+1.0 315...	Yes	Y		1	.9	16	1								
17 0.9D+1.0 330...	Yes	Y		1	.9	17	1								
18 1.2D+1.0 0-Wind	Yes	Y		1	1.2	2	1								
19 1.2D+1.0 30-Wi...	Yes	Y		1	1.2	3	1								
20 1.2D+1.0 45-Wi...	Yes	Y		1	1.2	4	1								
21 1.2D+1.0 60-Wi...	Yes	Y		1	1.2	5	1								
22 1.2D+1.0 90-Wi...	Yes	Y		1	1.2	6	1								
23 1.2D+1.0 120...	Yes	Y		1	1.2	7	1								
24 1.2D+1.0 135...	Yes	Y		1	1.2	8	1								
25 1.2D+1.0 150...	Yes	Y		1	1.2	9	1								
26 1.2D+1.0 180...	Yes	Y		1	1.2	10	1								
27 1.2D+1.0 210...	Yes	Y		1	1.2	11	1								
28 1.2D+1.0 225...	Yes	Y		1	1.2	12	1								
29 1.2D+1.0 240...	Yes	Y		1	1.2	13	1								
30 1.2D+1.0 270...	Yes	Y		1	1.2	14	1								
31 1.2D+1.0 300...	Yes	Y		1	1.2	15	1								
32 1.2D+1.0 315...	Yes	Y		1	1.2	16	1								
33 1.2D+1.0 330...	Yes	Y		1	1.2	17	1								
34 1.2D+1.0D+1.0	Yes	Y		1	1.2	18	1	19	1						
35 1.2D+1.0D+1.0	Yes	Y		1	1.2	18	1	20	1						
36 1.2D+1.0D+1.0	Yes	Y		1	1.2	18	1	21	1						
37 1.2D+1.0D+1.0	Yes	Y		1	1.2	18	1	22	1						
38 1.2D+1.0D+1.0	Yes	Y		1	1.2	18	1	23	1						
39 1.2D+1.0D+1.0	Yes	Y		1	1.2	18	1	24	1						
40 1.2D+1.0D+1.0	Yes	Y		1	1.2	18	1	25	1						
41 1.2D+1.0D+1.0	Yes	Y		1	1.2	18	1	26	1						
42 1.2D+1.0D+1.0	Yes	Y		1	1.2	18	1	27	1						
43 1.2D+1.0D+1.0	Yes	Y		1	1.2	18	1	28	1						
44 1.2D+1.0D+1.0	Yes	Y		1	1.2	18	1	29	1						
45 1.2D+1.0D+1.0	Yes	Y		1	1.2	18	1	30	1						
46 1.2D+1.0D+1.0	Yes	Y		1	1.2	18	1	31	1						
47 1.2D+1.0D+1.0	Yes	Y		1	1.2	18	1	32	1						
48 1.2D+1.0D+1.0	Yes	Y		1	1.2	18	1	33	1						



Company : Tower Engineering Professionals, Inc.  
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**Load Combinations (Continued)**

Description	So.	P	Delta	S.	B	CLCFac.	BLCFac.	BLCFac.	BLCFac.	BLCFac.	BLCFac.	BLCFac.	BLCFac.	BLCFac.	BLCFac.	BLCFac.
49	1.2D+1.0D+1.0	Yes	Y			1	1.2	18	1	34	1					
50	1.2D+1.5Lv	Yes	Y			36	1.5	1	1.2							
51	1.2D+1.5Lm+1...	Yes	Y			1	1.2	2	.065	35	1.5					
52	1.2D+1.5Lm+1...	Yes	Y			1	1.2	3	.065	35	1.5					
53	1.2D+1.5Lm+1...	Yes	Y			1	1.2	4	.065	35	1.5					
54	1.2D+1.5Lm+1...	Yes	Y			1	1.2	5	.065	35	1.5					
55	1.2D+1.5Lm+1...	Yes	Y			1	1.2	6	.065	35	1.5					
56	1.2D+1.5Lm+1...	Yes	Y			1	1.2	7	.065	35	1.5					
57	1.2D+1.5Lm+1...	Yes	Y			1	1.2	8	.065	35	1.5					
58	1.2D+1.5Lm+1...	Yes	Y			1	1.2	9	.065	35	1.5					
59	1.2D+1.5Lm+1...	Yes	Y			1	1.2	10	.065	35	1.5					
60	1.2D+1.5Lm+1...	Yes	Y			1	1.2	11	.065	35	1.5					
61	1.2D+1.5Lm+1...	Yes	Y			1	1.2	12	.065	35	1.5					
62	1.2D+1.5Lm+1...	Yes	Y			1	1.2	13	.065	35	1.5					
63	1.2D+1.5Lm+1...	Yes	Y			1	1.2	14	.065	35	1.5					
64	1.2D+1.5Lm+1...	Yes	Y			1	1.2	15	.065	35	1.5					
65	1.2D+1.5Lm+1...	Yes	Y			1	1.2	16	.065	35	1.5					
66	1.2D+1.5Lm+1...	Yes	Y			1	1.2	17	.065	35	1.5					
67	1.2+0.2SdsD+	Yes	Y			1	1.2	ELX_104	0							
68	1.2+0.2SdsD+	Yes	Y			1	1.2	ELX_09	ELZ_052							
69	1.2+0.2SdsD+	Yes	Y			1	1.2	ELX_074	ELZ_074							
70	1.2+0.2SdsD+	Yes	Y			1	1.2	ELX_052	ELZ_09							
71	1.2+0.2SdsD+	Yes	Y			1	1.2	0	ELZ_104							
72	1.2+0.2SdsD+	Yes	Y			1	1.2	ELX_052	ELZ_09							
73	1.2+0.2SdsD+	Yes	Y			1	1.2	ELX_074	ELZ_074							
74	1.2+0.2SdsD+	Yes	Y			1	1.2	ELX_09	ELZ_052							
75	1.2+0.2SdsD+	Yes	Y			1	1.2	ELX_104	0							
76	1.2+0.2SdsD+	Yes	Y			1	1.2	ELX_09	ELZ_052							
77	1.2+0.2SdsD+	Yes	Y			1	1.2	ELX_074	ELZ_074							
78	1.2+0.2SdsD+	Yes	Y			1	1.2	ELX_052	ELZ_09							
79	1.2+0.2SdsD+	Yes	Y			1	1.2	0	ELZ_104							
80	1.2+0.2SdsD+	Yes	Y			1	1.2	ELX_052	ELZ_09							
81	1.2+0.2SdsD+	Yes	Y			1	1.2	ELX_074	ELZ_074							
82	1.2+0.2SdsD+	Yes	Y			1	1.2	ELX_09	ELZ_052							
83	0.9+0.2Sds*DL	Yes	Y			1	.858	ELX_104	0							
84	0.9+0.2Sds*DL	Yes	Y			1	.858	ELX_09	ELZ_052							
85	0.9+0.2Sds*DL	Yes	Y			1	.858	ELX_074	ELZ_074							
86	0.9+0.2Sds*DL	Yes	Y			1	.858	ELX_052	ELZ_09							
87	0.9+0.2Sds*DL	Yes	Y			1	.858	0	ELZ_104							
88	0.9+0.2Sds*DL	Yes	Y			1	.858	ELX_052	ELZ_09							
89	0.9+0.2Sds*DL	Yes	Y			1	.858	ELX_074	ELZ_074							
90	0.9+0.2Sds*DL	Yes	Y			1	.858	ELX_09	ELZ_052							
91	0.9+0.2Sds*DL	Yes	Y			1	.858	ELX_104	0							
92	0.9+0.2Sds*DL	Yes	Y			1	.858	ELX_09	ELZ_052							
93	0.9+0.2Sds*DL	Yes	Y			1	.858	ELX_074	ELZ_074							
94	0.9+0.2Sds*DL	Yes	Y			1	.858	ELX_052	ELZ_09							
95	0.9+0.2Sds*DL	Yes	Y			1	.858	0	ELZ_104							
96	0.9+0.2Sds*DL	Yes	Y			1	.858	ELX_052	ELZ_09							
97	0.9+0.2Sds*DL	Yes	Y			1	.858	ELX_074	ELZ_074							
98	0.9+0.2Sds*DL	Yes	Y			1	.858	ELX_09	ELZ_052							

**Joint Loads and Enforced Displacements (BLC 35 : Lm)**

Joint Label	L,D,M	Direction	Magnitude[(k.k.ft), (in.rad), (k*s^2/ft.)]	
1	N39	L	Y	-5



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**Joint Loads and Enforced Displacements (BLC 36 : Lv)**

Joint Label	L,D,M	Direction	Magnitude[(k.k.ft), (in.rad), (k*s^2/ft.)]	
1	N30	L	Y	-25

**Member Point Loads (BLC 1 : Dead)**

Member Label	Direction	Magnitude[(k.k.ft)]	Location(%)	
1	MP-1	Y	-0.48	1.5
2	MP-2	Y	-0.64	.5
3	MP-2	Y	-0.73	2
4	MP-5	Y	-1.09	2
5	MP-3	Y	-0.86	1.5
6	MP-4	Y	-0.48	1.75
7	MP-5	Y	-0.64	.5
8	MP-5	Y	-0.73	2
9	MP-5	Y	-1.09	2
10	MP-6	Y	-0.86	1.75
11	MP-7	Y	-0.48	1.75
12	MP-8	Y	-0.64	.5
13	MP-8	Y	-0.73	2
14	MP-8	Y	-1.09	2
15	MP-9	Y	-0.86	1.75
16	MP-1	Y	-0.48	5.5
17	MP-2	Y	-0.64	7.5
18	MP-3	Y	-0.86	5.5
19	MP-4	Y	-0.48	6.25
20	MP-5	Y	-0.64	7.5
21	MP-6	Y	-0.86	6.25
22	MP-7	Y	-0.48	6.25
23	MP-8	Y	-0.64	7.5
24	MP-9	Y	-0.86	6.25

**Member Point Loads (BLC 2 : 0 Wind - No Ice)**

Member Label	Direction	Magnitude[(k.k.ft)]	Location(%)	
1	MP-1	X	-0.93	1.5
2	MP-2	X	-2.16	.5
3	MP-2	X	-0.47	2
4	MP-2	X	-0.5	2
5	MP-3	X	-0.57	1.5
6	MP-4	X	-0.55	1.75
7	MP-5	X	-1.13	.5
8	MP-5	X	-0.55	2
9	MP-5	X	-0.6	2
10	MP-6	X	-0.42	1.75
11	MP-7	X	-0.55	1.75
12	MP-8	X	-1.13	.5
13	MP-8	X	-0.55	2
14	MP-8	X	-0.6	2
15	MP-9	X	-0.42	1.75
16	MP-1	X	-0.93	5.5
17	MP-2	X	-2.16	7.5
18	MP-3	X	-0.57	5.5
19	MP-4	X	-0.55	6.25
20	MP-5	X	-1.13	7.5
21	MP-6	X	-0.42	6.25
22	MP-7	X	-0.55	6.25
23	MP-8	X	-1.13	7.5
24	MP-9	X	-0.42	6.25





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**Member Point Loads (BLC 3 : 30 Wind - No Ice)**

Member Label	Direction	Magnitude(k.k-ft)	Location(ft.%)	
1	MP-1	X	-07	1.5
2	MP-2	X	-157	5
3	MP-2	X	-043	2
4	MP-2	X	-046	2
5	MP-3	X	-045	1.5
6	MP-4	X	-037	1.75
7	MP-5	X	-068	5
8	MP-5	X	-05	2
9	MP-5	X	-055	2
10	MP-6	X	-032	1.75
11	MP-7	X	-07	1.75
12	MP-8	X	-157	5
13	MP-8	X	-043	2
14	MP-8	X	-046	2
15	MP-9	X	-045	1.75
16	MP-1	X	-07	5.5
17	MP-2	X	-157	7.5
18	MP-3	X	-045	5.5
19	MP-4	X	-037	6.25
20	MP-5	X	-068	7.5
21	MP-6	X	-032	6.25
22	MP-7	X	-07	6.25
23	MP-8	X	-157	7.5
24	MP-9	X	-045	6.25
25	MP-1	Z	-04	1.5
26	MP-2	Z	-091	5
27	MP-2	Z	-025	2
28	MP-2	Z	-027	2
29	MP-3	Z	-026	1.5
30	MP-4	Z	-021	1.75
31	MP-5	Z	-039	5
32	MP-5	Z	-029	2
33	MP-5	Z	-032	2
34	MP-6	Z	-019	1.75
35	MP-7	Z	-04	1.75
36	MP-8	Z	-091	5
37	MP-8	Z	-025	2
38	MP-8	Z	-027	2
39	MP-9	Z	-026	1.75
40	MP-1	Z	-04	5.5
41	MP-2	Z	-091	7.5
42	MP-3	Z	-026	5.5
43	MP-4	Z	-021	6.25
44	MP-5	Z	-039	7.5
45	MP-6	Z	-019	6.25
46	MP-7	Z	-04	6.25
47	MP-8	Z	-091	7.5
48	MP-9	Z	-026	6.25

**Member Point Loads (BLC 4 : 45 Wind - No Ice)**

Member Label	Direction	Magnitude(k.k-ft)	Location(ft.%)	
1	MP-1	X	-048	1.5
2	MP-2	X	-104	5
3	MP-2	X	-037	2
4	MP-2	X	-04	2
5	MP-3	X	-033	1.5



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**Member Point Loads (BLC 4 : 45 Wind - No Ice) (Continued)**

Member Label	Direction	Magnitude(k.k-ft)	Location(ft.%)	
6	MP-4	X	-032	1.75
7	MP-5	X	-062	5
8	MP-5	X	-041	2
9	MP-5	X	-044	2
10	MP-6	X	-027	1.75
11	MP-7	X	-063	1.75
12	MP-8	X	-146	5
13	MP-8	X	-034	2
14	MP-8	X	-036	2
15	MP-9	X	-039	1.75
16	MP-1	X	-048	5.5
17	MP-2	X	-104	7.5
18	MP-3	X	-033	5.5
19	MP-4	X	-032	6.25
20	MP-5	X	-062	7.5
21	MP-6	X	-027	6.25
22	MP-7	X	-063	6.25
23	MP-8	X	-146	7.5
24	MP-9	X	-039	6.25
25	MP-1	Z	-048	1.5
26	MP-2	Z	-104	5
27	MP-2	Z	-037	2
28	MP-2	Z	-04	2
29	MP-3	Z	-033	1.5
30	MP-4	Z	-032	1.75
31	MP-5	Z	-062	5
32	MP-5	Z	-041	2
33	MP-5	Z	-044	2
34	MP-6	Z	-027	1.75
35	MP-7	Z	-063	1.75
36	MP-8	Z	-146	5
37	MP-8	Z	-034	2
38	MP-8	Z	-036	2
39	MP-9	Z	-039	1.75
40	MP-1	Z	-048	5.5
41	MP-2	Z	-104	7.5
42	MP-3	Z	-033	5.5
43	MP-4	Z	-032	6.25
44	MP-5	Z	-062	7.5
45	MP-6	Z	-027	6.25
46	MP-7	Z	-063	6.25
47	MP-8	Z	-146	7.5
48	MP-9	Z	-039	6.25

**Member Point Loads (BLC 5 : 60 Wind - No Ice)**

Member Label	Direction	Magnitude(k.k-ft)	Location(ft.%)	
1	MP-1	X	-028	1.5
2	MP-2	X	-056	5
3	MP-2	X	-028	2
4	MP-2	X	-03	2
5	MP-3	X	-021	1.5
6	MP-4	X	-028	1.75
7	MP-5	X	-056	5
8	MP-5	X	-028	2
9	MP-5	X	-03	2
10	MP-6	X	-021	1.75



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**Member Point Loads (BLC 5 : 60 Wind - No Ice) (Continued)**

Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]	
11	MP-7	X	-0.47	1.75
12	MP-8	X	-1.08	.5
13	MP-8	X	-0.23	2
14	MP-8	X	-0.25	2
15	MP-9	X	-0.28	1.75
16	MP-1	X	-0.28	5.5
17	MP-2	X	-0.56	7.5
18	MP-3	X	-0.21	5.5
19	MP-4	X	-0.28	6.25
20	MP-5	X	-0.56	7.5
21	MP-6	X	-0.21	6.25
22	MP-7	X	-0.47	6.25
23	MP-8	X	-1.08	7.5
24	MP-9	X	-0.28	6.25
25	MP-1	Z	-0.48	1.5
26	MP-2	Z	-0.98	.5
27	MP-2	Z	-0.48	2
28	MP-2	Z	-0.52	2
29	MP-3	Z	-0.36	1.5
30	MP-4	Z	-0.48	1.75
31	MP-5	Z	-0.38	.5
32	MP-5	Z	-0.48	2
33	MP-5	Z	-0.52	2
34	MP-6	Z	-0.36	1.75
35	MP-7	Z	-0.81	1.75
36	MP-8	Z	-1.87	.5
37	MP-8	Z	-0.41	2
38	MP-8	Z	-0.43	2
39	MP-9	Z	-0.49	1.75
40	MP-1	Z	-0.48	5.5
41	MP-2	Z	-0.98	7.5
42	MP-3	Z	-0.36	5.5
43	MP-4	Z	-0.48	6.25
44	MP-5	Z	-0.98	7.5
45	MP-6	Z	-0.36	6.25
46	MP-7	Z	-0.81	6.25
47	MP-8	Z	-1.87	7.5
48	MP-9	Z	-0.49	6.25

**Member Point Loads (BLC 6 : 90 Wind - No Ice)**

Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]	
1	MP-1	Z	-0.42	1.5
2	MP-2	Z	-0.78	.5
3	MP-2	Z	-0.58	2
4	MP-2	Z	-0.63	2
5	MP-3	Z	-0.37	1.5
6	MP-4	Z	-0.8	1.75
7	MP-5	Z	-1.82	.5
8	MP-5	Z	-0.5	2
9	MP-5	Z	-0.53	2
10	MP-6	Z	-0.52	1.75
11	MP-7	Z	-0.8	1.75
12	MP-8	Z	-1.82	.5
13	MP-8	Z	-0.5	2
14	MP-8	Z	-0.53	2
15	MP-9	Z	-0.52	1.75



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**Member Point Loads (BLC 6 : 90 Wind - No Ice) (Continued)**

Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]	
16	MP-1	Z	-0.42	5.5
17	MP-2	Z	-0.78	7.5
18	MP-3	Z	-0.37	5.5
19	MP-4	Z	-0.8	6.25
20	MP-5	Z	-1.82	7.5
21	MP-6	Z	-0.52	6.25
22	MP-7	Z	-0.8	6.25
23	MP-8	Z	-1.82	7.5
24	MP-9	Z	-0.52	6.25

**Member Point Loads (BLC 7 : 120 Wind - No Ice)**

Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]	
1	MP-1	X	.028	1.5
2	MP-2	X	.056	.5
3	MP-2	X	.028	2
4	MP-2	X	.03	2
5	MP-3	X	.021	1.5
6	MP-4	X	.047	1.75
7	MP-5	X	.108	.5
8	MP-5	X	.023	2
9	MP-5	X	.025	2
10	MP-6	X	.028	1.75
11	MP-7	X	.028	1.75
12	MP-8	X	.056	.5
13	MP-8	X	.028	2
14	MP-8	X	.03	2
15	MP-9	X	.021	1.75
16	MP-1	X	.028	5.5
17	MP-2	X	.056	7.5
18	MP-3	X	.021	5.5
19	MP-4	X	.047	6.25
20	MP-5	X	.108	7.5
21	MP-6	X	.028	6.25
22	MP-7	X	.028	6.25
23	MP-8	X	.056	7.5
24	MP-9	X	.021	6.25
25	MP-1	Z	-0.48	1.5
26	MP-2	Z	-0.98	.5
27	MP-2	Z	-0.48	2
28	MP-2	Z	-0.52	2
29	MP-3	Z	-0.36	1.5
30	MP-4	Z	-0.48	1.75
31	MP-5	Z	-1.87	.5
32	MP-5	Z	-0.41	2
33	MP-5	Z	-0.43	2
34	MP-6	Z	-0.49	1.75
35	MP-7	Z	-0.48	1.75
36	MP-8	Z	-0.98	.5
37	MP-8	Z	-0.49	2
38	MP-8	Z	-0.52	2
39	MP-9	Z	-0.36	1.75
40	MP-1	Z	-0.48	5.5
41	MP-2	Z	-0.98	7.5
42	MP-3	Z	-0.36	5.5
43	MP-4	Z	-0.81	6.25
44	MP-5	Z	-1.87	7.5



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**Member Point Loads (BLC 7 : 120 Wind - No Ice) (Continued)**

Member Label	Direction	Magnitude[k.k.ft]	Location(ft.%)	
45	MP-6	Z	-0.49	6.25
46	MP-7	Z	-0.48	6.25
47	MP-8	Z	-0.98	7.5
48	MP-9	Z	-0.36	6.25

**Member Point Loads (BLC 8 : 135 Wind - No Ice)**

Member Label	Direction	Magnitude[k.k.ft]	Location(ft.%)	
1	MP-1	X	.048	1.5
2	MP-2	X	.104	5
3	MP-2	X	.037	2
4	MP-2	X	.04	2
5	MP-3	X	.033	1.5
6	MP-4	X	.063	1.75
7	MP-5	X	.146	5
8	MP-5	X	.034	2
9	MP-5	X	.036	2
10	MP-6	X	.039	1.75
11	MP-7	X	.032	1.75
12	MP-8	X	.062	5
13	MP-8	X	.041	2
14	MP-8	X	.044	2
15	MP-9	X	.027	1.75
16	MP-1	X	.048	5.5
17	MP-2	X	.104	7.5
18	MP-3	X	.033	5.5
19	MP-4	X	.063	6.25
20	MP-5	X	.146	7.5
21	MP-6	X	.039	6.25
22	MP-7	X	.032	6.25
23	MP-8	X	.062	7.5
24	MP-9	X	.027	6.25
25	MP-1	Z	-0.48	1.5
26	MP-2	Z	-1.04	5
27	MP-2	Z	-0.37	2
28	MP-2	Z	-0.4	2
29	MP-3	Z	-0.33	1.5
30	MP-4	Z	-0.63	1.75
31	MP-5	Z	-1.46	5
32	MP-5	Z	-0.34	2
33	MP-5	Z	-0.36	2
34	MP-6	Z	-0.39	1.75
35	MP-7	Z	-0.32	1.75
36	MP-8	Z	-0.62	5
37	MP-8	Z	-0.41	2
38	MP-8	Z	-0.44	2
39	MP-9	Z	-0.27	1.75
40	MP-1	Z	-0.48	5.5
41	MP-2	Z	-1.04	7.5
42	MP-3	Z	-0.33	5.5
43	MP-4	Z	-0.63	6.25
44	MP-5	Z	-1.46	7.5
45	MP-6	Z	-0.39	6.25
46	MP-7	Z	-0.32	6.25
47	MP-8	Z	-0.62	7.5
48	MP-9	Z	-0.27	6.25



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**Member Point Loads (BLC 9 : 150 Wind - No Ice)**

Member Label	Direction	Magnitude[k.k.ft]	Location(ft.%)	
1	MP-1	X	.07	1.5
2	MP-2	X	.157	5
3	MP-2	X	.043	2
4	MP-2	X	.046	2
5	MP-3	X	.045	1.5
6	MP-4	X	.07	1.75
7	MP-5	X	.157	5
8	MP-5	X	.043	2
9	MP-5	X	.046	2
10	MP-6	X	.045	1.75
11	MP-7	X	.037	1.75
12	MP-8	X	.068	5
13	MP-8	X	.05	2
14	MP-8	X	.055	2
15	MP-9	X	.032	1.75
16	MP-1	X	.07	5.5
17	MP-2	X	.157	7.5
18	MP-3	X	.045	5.5
19	MP-4	X	.07	6.25
20	MP-5	X	.157	7.5
21	MP-6	X	.045	6.25
22	MP-7	X	.037	6.25
23	MP-8	X	.068	7.5
24	MP-9	X	.032	6.25
25	MP-1	Z	-0.4	1.5
26	MP-2	Z	-0.91	5
27	MP-2	Z	-0.25	2
28	MP-2	Z	-0.27	2
29	MP-3	Z	-0.26	1.5
30	MP-4	Z	-0.4	1.75
31	MP-5	Z	-0.91	5
32	MP-5	Z	-0.25	2
33	MP-5	Z	-0.27	2
34	MP-6	Z	-0.26	1.75
35	MP-7	Z	-0.21	1.75
36	MP-8	Z	-0.39	5
37	MP-8	Z	-0.29	2
38	MP-8	Z	-0.32	2
39	MP-9	Z	-0.19	1.75
40	MP-1	Z	-0.4	5.5
41	MP-2	Z	-0.91	7.5
42	MP-3	Z	-0.26	5.5
43	MP-4	Z	-0.4	6.25
44	MP-5	Z	-0.91	7.5
45	MP-6	Z	-0.26	6.25
46	MP-7	Z	-0.21	6.25
47	MP-8	Z	-0.39	7.5
48	MP-9	Z	-0.19	6.25

**Member Point Loads (BLC 10 : 180 Wind - No Ice)**

Member Label	Direction	Magnitude[k.k.ft]	Location(ft.%)	
1	MP-1	X	.093	1.5
2	MP-2	X	.216	5
3	MP-2	X	.047	2
4	MP-2	X	.05	2
5	MP-3	X	.057	1.5



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**Member Point Loads (BLC 10 : 180 Wind - No Ice) (Continued)**

Member Label	Direction	Magnitude[k.k-ft]	Location(ft.%)	
6	MP-4	X	.055	1.75
7	MP-5	X	.113	.5
8	MP-5	X	.055	2
9	MP-5	X	.06	2
10	MP-6	X	.042	1.75
11	MP-7	X	.055	1.75
12	MP-8	X	.113	.5
13	MP-8	X	.055	2
14	MP-8	X	.06	2
15	MP-9	X	.042	1.75
16	MP-1	X	.093	5.5
17	MP-2	X	.216	7.5
18	MP-3	X	.057	5.5
19	MP-4	X	.055	6.25
20	MP-5	X	.113	7.5
21	MP-6	X	.042	6.25
22	MP-7	X	.055	6.25
23	MP-8	X	.113	7.5
24	MP-9	X	.042	6.25

**Member Point Loads (BLC 11 : 210 Wind - No Ice)**

Member Label	Direction	Magnitude[k.k-ft]	Location(ft.%)	
1	MP-1	X	.07	1.5
2	MP-2	X	.157	.5
3	MP-2	X	.043	2
4	MP-2	X	.046	2
5	MP-3	X	.045	1.5
6	MP-4	X	.037	1.75
7	MP-5	X	.068	.5
8	MP-5	X	.05	2
9	MP-5	X	.055	2
10	MP-6	X	.032	1.75
11	MP-7	X	.07	1.75
12	MP-8	X	.157	.5
13	MP-8	X	.043	2
14	MP-8	X	.046	2
15	MP-9	X	.045	1.75
16	MP-1	X	.07	5.5
17	MP-2	X	.157	7.5
18	MP-3	X	.045	5.5
19	MP-4	X	.037	6.25
20	MP-5	X	.068	7.5
21	MP-6	X	.032	6.25
22	MP-7	X	.07	6.25
23	MP-8	X	.157	7.5
24	MP-9	X	.045	6.25
25	MP-1	Z	.04	1.5
26	MP-2	Z	.051	.5
27	MP-2	Z	.025	2
28	MP-2	Z	.027	2
29	MP-3	Z	.026	1.5
30	MP-4	Z	.021	1.75
31	MP-5	Z	.039	.5
32	MP-5	Z	.029	2
33	MP-5	Z	.032	2
34	MP-6	Z	.019	1.75



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**Member Point Loads (BLC 11 : 210 Wind - No Ice) (Continued)**

Member Label	Direction	Magnitude[k.k-ft]	Location(ft.%)	
35	MP-7	Z	.04	1.75
36	MP-8	Z	.091	.5
37	MP-8	Z	.025	2
38	MP-8	Z	.027	2
39	MP-9	Z	.026	1.75
40	MP-1	Z	.04	5.5
41	MP-2	Z	.091	7.5
42	MP-3	Z	.026	5.5
43	MP-4	Z	.021	6.25
44	MP-5	Z	.039	7.5
45	MP-6	Z	.019	6.25
46	MP-7	Z	.04	6.25
47	MP-8	Z	.091	7.5
48	MP-9	Z	.026	6.25

**Member Point Loads (BLC 12 : 225 Wind - No Ice)**

Member Label	Direction	Magnitude[k.k-ft]	Location(ft.%)	
1	MP-1	X	.048	1.5
2	MP-2	X	.104	.5
3	MP-2	X	.037	2
4	MP-2	X	.04	2
5	MP-3	X	.033	1.5
6	MP-4	X	.032	1.75
7	MP-5	X	.062	.5
8	MP-5	X	.041	2
9	MP-5	X	.044	2
10	MP-6	X	.027	1.75
11	MP-7	X	.063	1.75
12	MP-8	X	.146	.5
13	MP-8	X	.034	2
14	MP-8	X	.036	2
15	MP-9	X	.039	1.75
16	MP-1	X	.048	5.5
17	MP-2	X	.104	7.5
18	MP-3	X	.033	5.5
19	MP-4	X	.032	6.25
20	MP-5	X	.062	7.5
21	MP-6	X	.027	6.25
22	MP-7	X	.063	6.25
23	MP-8	X	.146	7.5
24	MP-9	X	.039	6.25
25	MP-1	Z	.048	1.5
26	MP-2	Z	.104	.5
27	MP-2	Z	.037	2
28	MP-2	Z	.04	2
29	MP-3	Z	.033	1.5
30	MP-4	Z	.032	1.75
31	MP-5	Z	.062	.5
32	MP-5	Z	.041	2
33	MP-5	Z	.044	2
34	MP-6	Z	.027	1.75
35	MP-7	Z	.063	1.75
36	MP-8	Z	.146	.5
37	MP-8	Z	.034	2
38	MP-8	Z	.036	2
39	MP-9	Z	.039	1.75



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**Member Point Loads (BLC 12 : 225 Wind - No Ice) (Continued)**

Member Label	Direction	Magnitude(k.k-ft)	Location(ft.%)	
40	MP-1	Z	.048	5.5
41	MP-2	Z	.104	7.5
42	MP-3	Z	.033	5.5
43	MP-4	Z	.032	6.25
44	MP-5	Z	.062	7.5
45	MP-6	Z	.027	6.25
46	MP-7	Z	.063	6.25
47	MP-8	Z	.146	7.5
48	MP-9	Z	.039	6.25

**Member Point Loads (BLC 13 : 240 Wind - No Ice)**

Member Label	Direction	Magnitude(k.k-ft)	Location(ft.%)	
1	MP-1	X	.028	1.5
2	MP-2	X	.056	.5
3	MP-2	X	.028	2
4	MP-2	X	.03	2
5	MP-3	X	.021	1.5
6	MP-4	X	.028	1.75
7	MP-5	X	.056	.5
8	MP-5	X	.028	2
9	MP-5	X	.03	2
10	MP-6	X	.021	1.75
11	MP-7	X	.047	1.75
12	MP-8	X	.108	.5
13	MP-8	X	.023	2
14	MP-8	X	.025	2
15	MP-9	X	.028	1.75
16	MP-1	X	.028	5.5
17	MP-2	X	.056	7.5
18	MP-3	X	.021	5.5
19	MP-4	X	.028	6.25
20	MP-5	X	.056	7.5
21	MP-6	X	.021	6.25
22	MP-7	X	.047	6.25
23	MP-8	X	.108	7.5
24	MP-9	X	.028	6.25
25	MP-1	Z	.048	1.5
26	MP-2	Z	.098	.5
27	MP-2	Z	.048	2
28	MP-2	Z	.052	2
29	MP-3	Z	.036	1.5
30	MP-4	Z	.048	1.75
31	MP-5	Z	.098	.5
32	MP-5	Z	.048	2
33	MP-5	Z	.052	2
34	MP-6	Z	.036	1.75
35	MP-7	Z	.081	1.75
36	MP-8	Z	.187	.5
37	MP-8	Z	.041	2
38	MP-8	Z	.043	2
39	MP-9	Z	.049	1.75
40	MP-1	Z	.048	5.5
41	MP-2	Z	.098	7.5
42	MP-3	Z	.036	5.5
43	MP-4	Z	.048	6.25
44	MP-5	Z	.098	7.5



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**Member Point Loads (BLC 13 : 240 Wind - No Ice) (Continued)**

Member Label	Direction	Magnitude(k.k-ft)	Location(ft.%)	
45	MP-6	Z	.036	6.25
46	MP-7	Z	.081	6.25
47	MP-8	Z	.187	7.5
48	MP-9	Z	.049	6.25

**Member Point Loads (BLC 14 : 270 Wind - No Ice)**

Member Label	Direction	Magnitude(k.k-ft)	Location(ft.%)	
1	MP-1	Z	.042	1.5
2	MP-2	Z	.078	.5
3	MP-2	Z	.058	2
4	MP-2	Z	.063	2
5	MP-3	Z	.037	1.5
6	MP-4	Z	.08	1.75
7	MP-5	Z	.182	.5
8	MP-5	Z	.05	2
9	MP-5	Z	.053	2
10	MP-6	Z	.052	1.75
11	MP-7	Z	.08	1.75
12	MP-8	Z	.182	.5
13	MP-8	Z	.05	2
14	MP-8	Z	.053	2
15	MP-9	Z	.052	1.75
16	MP-1	Z	.042	5.5
17	MP-2	Z	.078	7.5
18	MP-3	Z	.037	5.5
19	MP-4	Z	.08	6.25
20	MP-5	Z	.182	7.5
21	MP-6	Z	.052	6.25
22	MP-7	Z	.08	6.25
23	MP-8	Z	.182	7.5
24	MP-9	Z	.052	6.25

**Member Point Loads (BLC 15 : 300 Wind - No Ice)**

Member Label	Direction	Magnitude(k.k-ft)	Location(ft.%)	
1	MP-1	X	-.028	1.5
2	MP-2	X	-.056	.5
3	MP-2	X	-.028	2
4	MP-2	X	-.03	2
5	MP-3	X	-.021	1.5
6	MP-4	X	-.047	1.75
7	MP-5	X	-.108	.5
8	MP-5	X	-.023	2
9	MP-5	X	-.025	2
10	MP-6	X	-.028	1.75
11	MP-7	X	-.028	1.75
12	MP-8	X	-.056	.5
13	MP-8	X	-.028	2
14	MP-8	X	-.03	2
15	MP-9	X	-.021	1.75
16	MP-1	X	-.028	5.5
17	MP-2	X	-.056	7.5
18	MP-3	X	-.021	5.5
19	MP-4	X	-.047	6.25
20	MP-5	X	-.108	7.5
21	MP-6	X	-.028	6.25
22	MP-7	X	-.028	6.25



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**Member Point Loads (BLC 15 : 300 Wind - No Ice) (Continued)**

Member Label	Direction	Magnitude(k.k.ft)	Location(ft.%)	
23	MP-8	X	-0.56	7.5
24	MP-9	X	-0.21	6.25
25	MP-1	Z	0.48	1.5
26	MP-2	Z	0.98	.5
27	MP-2	Z	0.49	2
28	MP-2	Z	0.52	2
29	MP-3	Z	0.36	1.5
30	MP-4	Z	0.91	1.75
31	MP-5	Z	1.87	.5
32	MP-5	Z	0.41	2
33	MP-5	Z	0.43	2
34	MP-6	Z	0.49	1.75
35	MP-7	Z	0.49	1.75
36	MP-8	Z	0.98	.5
37	MP-8	Z	0.48	2
38	MP-8	Z	0.52	2
39	MP-9	Z	0.36	1.75
40	MP-1	Z	0.48	5.5
41	MP-2	Z	0.98	7.5
42	MP-3	Z	0.36	5.5
43	MP-4	Z	0.81	6.25
44	MP-5	Z	1.87	7.5
45	MP-6	Z	0.49	6.25
46	MP-7	Z	0.48	6.25
47	MP-8	Z	0.98	7.5
48	MP-9	Z	0.36	6.25

**Member Point Loads (BLC 16 : 315 Wind - No Ice)**

Member Label	Direction	Magnitude(k.k.ft)	Location(ft.%)	
1	MP-1	X	-0.48	1.5
2	MP-2	X	-1.04	.5
3	MP-2	X	-0.37	2
4	MP-2	X	-0.4	2
5	MP-3	X	-0.33	1.5
6	MP-4	X	-0.63	1.75
7	MP-5	X	-1.46	.5
8	MP-5	X	-0.34	2
9	MP-5	X	-0.36	2
10	MP-6	X	-0.39	1.75
11	MP-7	X	-0.32	1.75
12	MP-8	X	-0.62	.5
13	MP-8	X	-0.41	2
14	MP-8	X	-0.44	2
15	MP-9	X	-0.27	1.75
16	MP-1	X	-0.48	5.5
17	MP-2	X	-1.04	7.5
18	MP-3	X	-0.33	5.5
19	MP-4	X	-0.63	6.25
20	MP-5	X	-1.46	7.5
21	MP-6	X	-0.39	6.25
22	MP-7	X	-0.32	6.25
23	MP-8	X	-0.62	7.5
24	MP-9	X	-0.27	6.25
25	MP-1	Z	0.48	1.5
26	MP-2	Z	1.04	.5
27	MP-2	Z	0.37	2



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**Member Point Loads (BLC 16 : 315 Wind - No Ice) (Continued)**

Member Label	Direction	Magnitude(k.k.ft)	Location(ft.%)	
28	MP-2	Z	0.4	2
29	MP-3	Z	0.33	1.5
30	MP-4	Z	0.63	1.75
31	MP-5	Z	1.46	.5
32	MP-5	Z	0.34	2
33	MP-5	Z	0.36	2
34	MP-6	Z	0.39	1.75
35	MP-7	Z	0.32	1.75
36	MP-8	Z	0.62	.5
37	MP-8	Z	0.41	2
38	MP-8	Z	0.44	2
39	MP-9	Z	0.27	1.75
40	MP-1	Z	0.48	5.5
41	MP-2	Z	1.04	7.5
42	MP-3	Z	0.33	5.5
43	MP-4	Z	0.63	6.25
44	MP-5	Z	1.46	7.5
45	MP-6	Z	0.39	6.25
46	MP-7	Z	0.32	6.25
47	MP-8	Z	0.62	7.5
48	MP-9	Z	0.27	6.25

**Member Point Loads (BLC 17 : 330 Wind - No Ice)**

Member Label	Direction	Magnitude(k.k.ft)	Location(ft.%)	
1	MP-1	X	-0.7	1.5
2	MP-2	X	-1.57	.5
3	MP-2	X	-0.43	2
4	MP-2	X	-0.46	2
5	MP-3	X	-0.45	1.5
6	MP-4	X	-0.7	1.75
7	MP-5	X	-1.57	.5
8	MP-5	X	-0.43	2
9	MP-5	X	-0.46	2
10	MP-6	X	-0.45	1.75
11	MP-7	X	-0.37	1.75
12	MP-8	X	-0.68	.5
13	MP-8	X	-0.5	2
14	MP-8	X	-0.55	2
15	MP-9	X	-0.32	1.75
16	MP-1	X	-0.7	5.5
17	MP-2	X	-1.57	7.5
18	MP-3	X	-0.45	5.5
19	MP-4	X	-0.7	6.25
20	MP-5	X	-1.57	7.5
21	MP-6	X	-0.45	6.25
22	MP-7	X	-0.37	6.25
23	MP-8	X	-0.68	7.5
24	MP-9	X	-0.32	6.25
25	MP-1	Z	0.4	1.5
26	MP-2	Z	0.91	.5
27	MP-2	Z	0.25	2
28	MP-2	Z	0.27	2
29	MP-3	Z	0.26	1.5
30	MP-4	Z	0.4	1.75
31	MP-5	Z	0.91	.5
32	MP-5	Z	0.25	2





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**Member Point Loads (BLC 17 : 330 Wind - No Ice) (Continued)**

Member Label	Direction	Magnitude(k.k-ft)	Location(ft.%)	
33	MP-5	Z	.027	2
34	MP-6	Z	.026	1.75
35	MP-7	Z	.021	1.75
36	MP-8	Z	.039	.5
37	MP-9	Z	.029	2
38	MP-8	Z	.032	2
39	MP-9	Z	.019	1.75
40	MP-1	Z	.04	5.5
41	MP-2	Z	.091	7.5
42	MP-3	Z	.026	5.5
43	MP-4	Z	.04	6.25
44	MP-5	Z	.031	7.5
45	MP-6	Z	.026	6.25
46	MP-7	Z	.021	6.25
47	MP-8	Z	.039	7.5
48	MP-9	Z	.019	6.25

**Member Point Loads (BLC 18 : Ice Weight)**

Member Label	Direction	Magnitude(k.k-ft)	Location(ft.%)	
1	MP-1	Y	-.052	1.5
2	MP-2	Y	-.132	.5
3	MP-2	Y	-.048	2
4	MP-2	Y	-.054	2
5	MP-3	Y	-.055	1.5
6	MP-4	Y	-.052	1.75
7	MP-5	Y	-.132	.5
8	MP-5	Y	-.048	2
9	MP-5	Y	-.054	2
10	MP-6	Y	-.055	1.75
11	MP-7	Y	-.052	1.75
12	MP-8	Y	-.132	.5
13	MP-8	Y	-.048	2
14	MP-8	Y	-.054	2
15	MP-9	Y	-.055	1.75
16	MP-1	Y	-.052	5.5
17	MP-2	Y	-.132	7.5
18	MP-3	Y	-.055	5.5
19	MP-4	Y	-.052	6.25
20	MP-5	Y	-.132	7.5
21	MP-6	Y	-.055	6.25
22	MP-7	Y	-.052	6.25
23	MP-8	Y	-.132	7.5
24	MP-9	Y	-.055	6.25

**Member Point Loads (BLC 19 : 0 Wind - Ice)**

Member Label	Direction	Magnitude(k.k-ft)	Location(ft.%)	
1	MP-1	X	-.02	1.5
2	MP-2	X	-.04	.5
3	MP-2	X	-.014	2
4	MP-2	X	-.015	2
5	MP-3	X	-.011	1.5
6	MP-4	X	-.02	1.75
7	MP-5	X	-.04	.5
8	MP-5	X	-.014	2
9	MP-5	X	-.015	2
10	MP-6	X	-.011	1.75



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**Member Point Loads (BLC 19 : 0 Wind - Ice) (Continued)**

Member Label	Direction	Magnitude(k.k-ft)	Location(ft.%)	
11	MP-7	X	-.02	1.75
12	MP-8	X	-.04	.5
13	MP-8	X	-.014	2
14	MP-8	X	-.015	2
15	MP-9	X	-.011	1.75
16	MP-1	X	-.02	5.5
17	MP-2	X	-.04	7.5
18	MP-3	X	-.011	5.5
19	MP-4	X	-.02	6.25
20	MP-5	X	-.04	7.5
21	MP-6	X	-.011	6.25
22	MP-7	X	-.02	6.25
23	MP-8	X	-.04	7.5
24	MP-9	X	-.011	6.25

**Member Point Loads (BLC 20 : 30 Wind - Ice)**

Member Label	Direction	Magnitude(k.k-ft)	Location(ft.%)	
1	MP-1	X	-.015	1.5
2	MP-2	X	-.029	.5
3	MP-2	X	-.01	2
4	MP-2	X	-.011	2
5	MP-3	X	-.008	1.5
6	MP-4	X	-.009	1.75
7	MP-5	X	-.013	.5
8	MP-5	X	-.012	2
9	MP-5	X	-.013	2
10	MP-6	X	-.006	1.75
11	MP-7	X	-.015	1.75
12	MP-8	X	-.029	.5
13	MP-8	X	-.01	2
14	MP-8	X	-.011	2
15	MP-9	X	-.008	1.75
16	MP-1	X	-.015	5.5
17	MP-2	X	-.029	7.5
18	MP-3	X	-.008	5.5
19	MP-4	X	-.009	6.25
20	MP-5	X	-.013	7.5
21	MP-6	X	-.006	6.25
22	MP-7	X	-.015	6.25
23	MP-8	X	-.029	7.5
24	MP-9	X	-.008	6.25
25	MP-1	Z	-.009	1.5
26	MP-2	Z	-.017	.5
27	MP-2	Z	-.006	2
28	MP-2	Z	-.006	2
29	MP-3	Z	-.005	1.5
30	MP-4	Z	-.005	1.75
31	MP-5	Z	-.007	.5
32	MP-5	Z	-.007	2
33	MP-5	Z	-.007	2
34	MP-6	Z	-.004	1.75
35	MP-7	Z	-.009	1.75
36	MP-8	Z	-.017	.5
37	MP-8	Z	-.006	2
38	MP-8	Z	-.006	2
39	MP-9	Z	-.005	1.75



Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
 Job Number : TEP No. 25631.696298  
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**Member Point Loads (BLC 20 : 30 Wind - Ice) (Continued)**

Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]	
40	MP-1	Z	-0.09	5.5
41	MP-2	Z	-0.17	7.5
42	MP-3	Z	-0.05	5.5
43	MP-4	Z	-0.05	6.25
44	MP-5	Z	-0.07	7.5
45	MP-6	Z	-0.04	6.25
46	MP-7	Z	-0.09	6.25
47	MP-8	Z	-0.17	7.5
48	MP-9	Z	-0.05	6.25

**Member Point Loads (BLC 21 : 45 Wind - Ice)**

Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]	
1	MP-1	X	-0.1	1.5
2	MP-2	X	-0.19	5
3	MP-2	X	-0.09	2
4	MP-2	X	-0.09	2
5	MP-3	X	-0.06	1.5
6	MP-4	X	-0.07	1.75
7	MP-5	X	-0.12	5
8	MP-5	X	-0.1	2
9	MP-5	X	-0.1	2
10	MP-6	X	-0.05	1.75
11	MP-7	X	-0.13	1.75
12	MP-8	X	-0.27	5
13	MP-8	X	-0.08	2
14	MP-8	X	-0.09	2
15	MP-9	X	-0.07	1.75
16	MP-1	X	-0.1	5.5
17	MP-2	X	-0.19	7.5
18	MP-3	X	-0.06	5.5
19	MP-4	X	-0.07	6.25
20	MP-5	X	-0.12	7.5
21	MP-6	X	-0.05	6.25
22	MP-7	X	-0.13	6.25
23	MP-8	X	-0.27	7.5
24	MP-9	X	-0.07	6.25
25	MP-1	Z	-0.1	1.5
26	MP-2	Z	-0.19	5
27	MP-2	Z	-0.09	2
28	MP-2	Z	-0.09	2
29	MP-3	Z	-0.06	1.5
30	MP-4	Z	-0.07	1.75
31	MP-5	Z	-0.12	5
32	MP-5	Z	-0.1	2
33	MP-5	Z	-0.1	2
34	MP-6	Z	-0.05	1.75
35	MP-7	Z	-0.13	1.75
36	MP-8	Z	-0.27	5
37	MP-8	Z	-0.08	2
38	MP-8	Z	-0.09	2
39	MP-9	Z	-0.07	1.75
40	MP-1	Z	-0.1	5.5
41	MP-2	Z	-0.19	7.5
42	MP-3	Z	-0.06	5.5
43	MP-4	Z	-0.07	6.25
44	MP-5	Z	-0.12	7.5



Company : Tower Engineering Professionals, Inc.  
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**Member Point Loads (BLC 21 : 45 Wind - Ice) (Continued)**

Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]	
45	MP-6	Z	-0.05	6.25
46	MP-7	Z	-0.13	6.25
47	MP-8	Z	-0.27	7.5
48	MP-9	Z	-0.07	6.25

**Member Point Loads (BLC 22 : 60 Wind - Ice)**

Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]	
1	MP-1	X	-0.06	1.5
2	MP-2	X	-0.11	5
3	MP-2	X	-0.07	2
4	MP-2	X	-0.07	2
5	MP-3	X	-0.04	1.5
6	MP-4	X	-0.06	1.75
7	MP-5	X	-0.11	5
8	MP-5	X	-0.07	2
9	MP-5	X	-0.07	2
10	MP-6	X	-0.04	1.75
11	MP-7	X	-0.1	1.75
12	MP-8	X	-0.2	5
13	MP-8	X	-0.06	2
14	MP-8	X	-0.06	2
15	MP-9	X	-0.05	1.75
16	MP-1	X	-0.06	5.5
17	MP-2	X	-0.11	7.5
18	MP-3	X	-0.04	5.5
19	MP-4	X	-0.06	6.25
20	MP-5	X	-0.11	7.5
21	MP-6	X	-0.04	6.25
22	MP-7	X	-0.1	6.25
23	MP-8	X	-0.2	7.5
24	MP-9	X	-0.05	6.25
25	MP-1	Z	-0.11	1.5
26	MP-2	Z	-0.18	5
27	MP-2	Z	-0.11	2
28	MP-2	Z	-0.12	2
29	MP-3	Z	-0.07	1.5
30	MP-4	Z	-0.11	1.75
31	MP-5	Z	-0.18	5
32	MP-5	Z	-0.11	2
33	MP-5	Z	-0.12	2
34	MP-6	Z	-0.07	1.75
35	MP-7	Z	-0.17	1.75
36	MP-8	Z	-0.35	5
37	MP-8	Z	-0.1	2
38	MP-8	Z	-0.1	2
39	MP-9	Z	-0.09	1.75
40	MP-1	Z	-0.11	5.5
41	MP-2	Z	-0.18	7.5
42	MP-3	Z	-0.07	5.5
43	MP-4	Z	-0.11	6.25
44	MP-5	Z	-0.18	7.5
45	MP-6	Z	-0.07	6.25
46	MP-7	Z	-0.17	6.25
47	MP-8	Z	-0.35	7.5
48	MP-9	Z	-0.09	6.25



**Member Point Loads (BLC 23 : 90 Wind - Ice)**

Member Label	Direction	Magnitude(k.k.ft)	Location(ft.%)	
1	MP-1	Z	-01	1.5
2	MP-2	Z	-015	.5
3	MP-2	Z	-011	2
4	MP-2	Z	-012	2
5	MP-3	Z	-007	1.5
6	MP-4	Z	-01	1.75
7	MP-5	Z	-015	.5
8	MP-5	Z	-011	2
9	MP-5	Z	-012	2
10	MP-6	Z	-007	1.75
11	MP-7	Z	-01	1.75
12	MP-8	Z	-015	.5
13	MP-8	Z	-011	2
14	MP-8	Z	-012	2
15	MP-9	Z	-007	1.75
16	MP-1	Z	-01	5.5
17	MP-2	Z	-015	7.5
18	MP-3	Z	-007	5.5
19	MP-4	Z	-01	6.25
20	MP-5	Z	-015	7.5
21	MP-6	Z	-007	6.25
22	MP-7	Z	-01	6.25
23	MP-8	Z	-015	7.5
24	MP-9	Z	-007	6.25

**Member Point Loads (BLC 24 : 120 Wind - Ice)**

Member Label	Direction	Magnitude(k.k.ft)	Location(ft.%)	
1	MP-1	X	.006	1.5
2	MP-2	X	.011	.5
3	MP-2	X	.007	2
4	MP-2	X	.007	2
5	MP-3	X	.004	1.5
6	MP-4	X	.01	1.75
7	MP-5	X	.02	.5
8	MP-5	X	.006	2
9	MP-5	X	.006	2
10	MP-6	X	.005	1.75
11	MP-7	X	.006	1.75
12	MP-8	X	.011	.5
13	MP-8	X	.007	2
14	MP-8	X	.007	2
15	MP-9	X	.004	1.75
16	MP-1	X	.006	5.5
17	MP-2	X	.011	7.5
18	MP-3	X	.004	5.5
19	MP-4	X	.01	6.25
20	MP-5	X	.02	7.5
21	MP-6	X	.005	6.25
22	MP-7	X	.006	6.25
23	MP-8	X	.011	7.5
24	MP-9	X	.004	6.25
25	MP-1	Z	-.011	1.5
26	MP-2	Z	-.018	.5
27	MP-2	Z	-.011	2
28	MP-2	Z	-.012	2
29	MP-3	Z	-.007	1.5



**Member Point Loads (BLC 24 : 120 Wind - Ice) (Continued)**

Member Label	Direction	Magnitude(k.k.ft)	Location(ft.%)	
30	MP-4	Z	-.017	1.75
31	MP-5	Z	-.035	.5
32	MP-5	Z	-.01	2
33	MP-5	Z	-.01	2
34	MP-6	Z	-.009	1.75
35	MP-7	Z	-.011	1.75
36	MP-8	Z	-.018	.5
37	MP-8	Z	-.011	2
38	MP-8	Z	-.012	2
39	MP-9	Z	-.007	1.75
40	MP-1	Z	-.011	5.5
41	MP-2	Z	-.018	7.5
42	MP-3	Z	-.007	5.5
43	MP-4	Z	-.017	6.25
44	MP-5	Z	-.035	7.5
45	MP-6	Z	-.009	6.25
46	MP-7	Z	-.011	6.25
47	MP-8	Z	-.018	7.5
48	MP-9	Z	-.007	6.25

**Member Point Loads (BLC 25 : 135 Wind - Ice)**

Member Label	Direction	Magnitude(k.k.ft)	Location(ft.%)	
1	MP-1	X	.01	1.5
2	MP-2	X	.019	.5
3	MP-2	X	.009	2
4	MP-2	X	.009	2
5	MP-3	X	.006	1.5
6	MP-4	X	.013	1.75
7	MP-5	X	.027	.5
8	MP-5	X	.008	2
9	MP-5	X	.009	2
10	MP-6	X	.007	1.75
11	MP-7	X	.007	1.75
12	MP-8	X	.012	.5
13	MP-8	X	.01	2
14	MP-8	X	.01	2
15	MP-9	X	.005	1.75
16	MP-1	X	.01	5.5
17	MP-2	X	.019	7.5
18	MP-3	X	.006	5.5
19	MP-4	X	.013	6.25
20	MP-5	X	.027	7.5
21	MP-6	X	.007	6.25
22	MP-7	X	.007	6.25
23	MP-8	X	.012	7.5
24	MP-9	X	.005	6.25
25	MP-1	Z	-.01	1.5
26	MP-2	Z	-.019	.5
27	MP-2	Z	-.009	2
28	MP-2	Z	-.009	2
29	MP-3	Z	-.006	1.5
30	MP-4	Z	-.013	1.75
31	MP-5	Z	-.027	.5
32	MP-5	Z	-.008	2
33	MP-5	Z	-.009	2
34	MP-6	Z	-.007	1.75



Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
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**Member Point Loads (BLC 25 : 135 Wind - Ice) (Continued)**

Member Label	Direction	Magnitude[k.k-ft]	Location(ft.%)	
35	MP-7	Z	-0.07	1.75
36	MP-8	Z	-0.12	.5
37	MP-8	Z	-.01	2
38	MP-8	Z	-.01	2
39	MP-9	Z	-.005	1.75
40	MP-1	Z	-.01	5.5
41	MP-2	Z	-.019	7.5
42	MP-3	Z	-.006	5.5
43	MP-4	Z	-.013	6.25
44	MP-5	Z	-.027	7.5
45	MP-6	Z	-.007	6.25
46	MP-7	Z	-.007	6.25
47	MP-8	Z	-.012	7.5
48	MP-9	Z	-.005	6.25

**Member Point Loads (BLC 26 : 150 Wind - Ice)**

Member Label	Direction	Magnitude[k.k-ft]	Location(ft.%)	
1	MP-1	X	.015	1.5
2	MP-2	X	.029	.5
3	MP-2	X	.01	2
4	MP-2	X	.011	2
5	MP-3	X	.008	1.5
6	MP-4	X	.015	1.75
7	MP-5	X	.029	.5
8	MP-5	X	.01	2
9	MP-5	X	.011	2
10	MP-6	X	.008	1.75
11	MP-7	X	.009	1.75
12	MP-8	X	.013	.5
13	MP-8	X	.012	2
14	MP-8	X	.013	2
15	MP-9	X	.006	1.75
16	MP-1	X	.015	5.5
17	MP-2	X	.029	7.5
18	MP-3	X	.008	5.5
19	MP-4	X	.015	6.25
20	MP-5	X	.029	7.5
21	MP-6	X	.008	6.25
22	MP-7	X	.009	6.25
23	MP-8	X	.013	7.5
24	MP-9	X	.006	6.25
25	MP-1	Z	-.009	1.5
26	MP-2	Z	-.017	.5
27	MP-2	Z	-.006	2
28	MP-2	Z	-.006	2
29	MP-3	Z	-.005	1.5
30	MP-4	Z	-.009	1.75
31	MP-5	Z	-.017	.5
32	MP-5	Z	-.006	2
33	MP-5	Z	-.006	2
34	MP-6	Z	-.005	1.75
35	MP-7	Z	-.005	1.75
36	MP-8	Z	-.007	.5
37	MP-8	Z	-.007	2
38	MP-8	Z	-.007	2
39	MP-9	Z	-.004	1.75



Company : Tower Engineering Professionals, Inc.  
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**Member Point Loads (BLC 26 : 150 Wind - Ice) (Continued)**

Member Label	Direction	Magnitude[k.k-ft]	Location(ft.%)	
40	MP-1	Z	-.009	5.5
41	MP-2	Z	-.017	7.5
42	MP-3	Z	-.005	5.5
43	MP-4	Z	-.009	6.25
44	MP-5	Z	-.017	7.5
45	MP-6	Z	-.005	6.25
46	MP-7	Z	-.005	6.25
47	MP-8	Z	-.007	7.5
48	MP-9	Z	-.004	6.25

**Member Point Loads (BLC 27 : 180 Wind - Ice)**

Member Label	Direction	Magnitude[k.k-ft]	Location(ft.%)	
1	MP-1	X	.02	1.5
2	MP-2	X	.04	.5
3	MP-2	X	.014	2
4	MP-2	X	.015	2
5	MP-3	X	.011	1.5
6	MP-4	X	.02	1.75
7	MP-5	X	.04	.5
8	MP-5	X	.014	2
9	MP-5	X	.015	2
10	MP-6	X	.011	1.75
11	MP-7	X	.02	1.75
12	MP-8	X	.04	.5
13	MP-8	X	.014	2
14	MP-8	X	.015	2
15	MP-9	X	.011	1.75
16	MP-1	X	.02	5.5
17	MP-2	X	.04	7.5
18	MP-3	X	.011	5.5
19	MP-4	X	.02	6.25
20	MP-5	X	.04	7.5
21	MP-6	X	.011	6.25
22	MP-7	X	.02	6.25
23	MP-8	X	.04	7.5
24	MP-9	X	.011	6.25

**Member Point Loads (BLC 28 : 210 Wind - Ice)**

Member Label	Direction	Magnitude[k.k-ft]	Location(ft.%)	
1	MP-1	X	.015	1.5
2	MP-2	X	.029	.5
3	MP-2	X	.01	2
4	MP-2	X	.011	2
5	MP-3	X	.008	1.5
6	MP-4	X	.009	1.75
7	MP-5	X	.013	.5
8	MP-5	X	.012	2
9	MP-5	X	.013	2
10	MP-6	X	.006	1.75
11	MP-7	X	.015	1.75
12	MP-8	X	.029	.5
13	MP-9	X	.01	2
14	MP-8	X	.011	2
15	MP-9	X	.008	1.75
16	MP-1	X	.015	5.5
17	MP-2	X	.029	7.5



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**Member Point Loads (BLC 28 : 210 Wind - Ice) (Continued)**

Member Label	Direction	Magnitude[k.k.ft]	Location[ft.%]	
18	MP-3	X	.008	5.5
19	MP-4	X	.009	6.25
20	MP-5	X	.013	7.5
21	MP-6	X	.006	6.25
22	MP-7	X	.015	6.25
23	MP-8	X	.029	7.5
24	MP-9	X	.008	6.25
25	MP-1	Z	.009	1.5
26	MP-2	Z	.017	.5
27	MP-2	Z	.006	2
28	MP-2	Z	.006	2
29	MP-3	Z	.005	1.5
30	MP-4	Z	.005	1.75
31	MP-5	Z	.007	.5
32	MP-5	Z	.007	2
33	MP-5	Z	.007	2
34	MP-6	Z	.004	1.75
35	MP-7	Z	.009	1.75
36	MP-8	Z	.017	.5
37	MP-8	Z	.006	2
38	MP-9	Z	.006	2
39	MP-9	Z	.005	1.75
40	MP-1	Z	.009	5.5
41	MP-2	Z	.017	7.5
42	MP-3	Z	.005	5.5
43	MP-4	Z	.005	6.25
44	MP-5	Z	.007	7.5
45	MP-6	Z	.004	6.25
46	MP-7	Z	.009	6.25
47	MP-8	Z	.017	7.5
48	MP-9	Z	.005	6.25

**Member Point Loads (BLC 29 : 225 Wind - Ice)**

Member Label	Direction	Magnitude[k.k.ft]	Location[ft.%]	
1	MP-1	X	.01	1.5
2	MP-2	X	.019	.5
3	MP-2	X	.009	2
4	MP-2	X	.009	2
5	MP-3	X	.006	1.5
6	MP-4	X	.007	1.75
7	MP-5	X	.012	.5
8	MP-5	X	.01	2
9	MP-5	X	.01	2
10	MP-6	X	.005	1.75
11	MP-7	X	.013	1.75
12	MP-8	X	.027	.5
13	MP-8	X	.008	2
14	MP-8	X	.009	2
15	MP-9	X	.007	1.75
16	MP-1	X	.01	5.5
17	MP-2	X	.019	7.5
18	MP-3	X	.006	5.5
19	MP-4	X	.007	6.25
20	MP-5	X	.012	7.5
21	MP-6	X	.005	6.25
22	MP-7	X	.013	6.25



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**Member Point Loads (BLC 29 : 225 Wind - Ice) (Continued)**

Member Label	Direction	Magnitude[k.k.ft]	Location[ft.%]	
23	MP-8	X	.027	7.5
24	MP-9	X	.007	6.25
25	MP-1	Z	.01	1.5
26	MP-2	Z	.019	.5
27	MP-2	Z	.009	2
28	MP-2	Z	.009	2
29	MP-3	Z	.006	1.5
30	MP-4	Z	.007	1.75
31	MP-5	Z	.012	.5
32	MP-5	Z	.01	2
33	MP-5	Z	.01	2
34	MP-6	Z	.005	1.75
35	MP-7	Z	.019	1.75
36	MP-8	Z	.027	.5
37	MP-8	Z	.008	2
38	MP-8	Z	.009	2
39	MP-9	Z	.007	1.75
40	MP-1	Z	.01	5.5
41	MP-2	Z	.019	7.5
42	MP-3	Z	.006	5.5
43	MP-4	Z	.007	6.25
44	MP-5	Z	.012	7.5
45	MP-6	Z	.005	6.25
46	MP-7	Z	.013	6.25
47	MP-8	Z	.027	7.5
48	MP-9	Z	.007	6.25

**Member Point Loads (BLC 30 : 240 Wind - Ice)**

Member Label	Direction	Magnitude[k.k.ft]	Location[ft.%]	
1	MP-1	X	.006	1.5
2	MP-2	X	.011	.5
3	MP-2	X	.007	2
4	MP-2	X	.007	2
5	MP-3	X	.004	1.5
6	MP-4	X	.006	1.75
7	MP-5	X	.011	.5
8	MP-5	X	.007	2
9	MP-5	X	.007	2
10	MP-6	X	.004	1.75
11	MP-7	X	.01	1.75
12	MP-8	X	.02	.5
13	MP-8	X	.006	2
14	MP-8	X	.006	2
15	MP-9	X	.005	1.75
16	MP-1	X	.006	5.5
17	MP-2	X	.011	7.5
18	MP-3	X	.004	5.5
19	MP-4	X	.006	6.25
20	MP-5	X	.011	7.5
21	MP-6	X	.004	6.25
22	MP-7	X	.01	6.25
23	MP-8	X	.02	7.5
24	MP-9	X	.005	6.25
25	MP-1	Z	.011	1.5
26	MP-2	Z	.018	.5
27	MP-2	Z	.011	2



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 Designer : ARH  
 Job Number : TEP No. 25631.696298  
 Model Name : CCI BU No 876317

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**Member Point Loads (BLC 30 : 240 Wind - Ice) (Continued)**

Member Label	Direction	Magnitude(k.k-ft)	Location(ft.%)	
28	MP-2	Z	.012	2
29	MP-3	Z	.007	1.5
30	MP-4	Z	.011	1.75
31	MP-5	Z	.018	.5
32	MP-5	Z	.011	2
33	MP-5	Z	.012	2
34	MP-6	Z	.007	1.75
35	MP-7	Z	.017	1.75
36	MP-8	Z	.035	.5
37	MP-8	Z	.01	2
38	MP-8	Z	.01	2
39	MP-9	Z	.009	1.75
40	MP-1	Z	.011	5.5
41	MP-2	Z	.018	7.5
42	MP-3	Z	.007	5.5
43	MP-4	Z	.011	6.25
44	MP-5	Z	.018	7.5
45	MP-6	Z	.007	6.25
46	MP-7	Z	.017	6.25
47	MP-8	Z	.035	7.5
48	MP-9	Z	.009	6.25

**Member Point Loads (BLC 31 : 270 Wind - Ice)**

Member Label	Direction	Magnitude(k.k-ft)	Location(ft.%)	
1	MP-1	Z	.01	1.5
2	MP-2	Z	.015	.5
3	MP-2	Z	.011	2
4	MP-2	Z	.012	2
5	MP-3	Z	.007	1.5
6	MP-4	Z	.01	1.75
7	MP-5	Z	.015	.5
8	MP-5	Z	.011	2
9	MP-5	Z	.012	2
10	MP-6	Z	.007	1.75
11	MP-7	Z	.01	1.75
12	MP-8	Z	.015	.5
13	MP-8	Z	.011	2
14	MP-8	Z	.012	2
15	MP-9	Z	.007	1.75
16	MP-1	Z	.01	5.5
17	MP-2	Z	.015	7.5
18	MP-3	Z	.007	5.5
19	MP-4	Z	.01	6.25
20	MP-5	Z	.015	7.5
21	MP-6	Z	.007	6.25
22	MP-7	Z	.01	6.25
23	MP-8	Z	.015	7.5
24	MP-9	Z	.007	6.25

**Member Point Loads (BLC 32 : 300 Wind - Ice)**

Member Label	Direction	Magnitude(k.k-ft)	Location(ft.%)	
1	MP-1	X	-.006	1.5
2	MP-2	X	-.011	.5
3	MP-2	X	-.007	2
4	MP-2	X	-.007	2
5	MP-3	X	-.004	1.5



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**Member Point Loads (BLC 32 : 300 Wind - Ice) (Continued)**

Member Label	Direction	Magnitude(k.k-ft)	Location(ft.%)	
6	MP-4	X	-.01	1.75
7	MP-5	X	-.02	.5
8	MP-5	X	-.006	2
9	MP-5	X	-.006	2
10	MP-6	X	-.005	1.75
11	MP-7	X	-.006	1.75
12	MP-8	X	-.011	.5
13	MP-8	X	-.007	2
14	MP-8	X	-.007	2
15	MP-9	X	-.004	1.75
16	MP-1	X	-.006	5.5
17	MP-2	X	-.011	7.5
18	MP-3	X	-.004	5.5
19	MP-4	X	-.01	6.25
20	MP-5	X	-.02	7.5
21	MP-6	X	-.005	6.25
22	MP-7	X	-.006	6.25
23	MP-8	X	-.011	7.5
24	MP-9	X	-.004	6.25
25	MP-1	Z	.011	1.5
26	MP-2	Z	.018	.5
27	MP-2	Z	.011	2
28	MP-2	Z	.012	2
29	MP-3	Z	.007	1.5
30	MP-4	Z	.017	1.75
31	MP-5	Z	.035	.5
32	MP-5	Z	.01	2
33	MP-5	Z	.01	2
34	MP-6	Z	.009	1.75
35	MP-7	Z	.011	1.75
36	MP-8	Z	.018	.5
37	MP-8	Z	.011	2
38	MP-8	Z	.012	2
39	MP-9	Z	.007	1.75
40	MP-1	Z	.011	5.5
41	MP-2	Z	.018	7.5
42	MP-3	Z	.007	5.5
43	MP-4	Z	.017	6.25
44	MP-5	Z	.035	7.5
45	MP-6	Z	.009	6.25
46	MP-7	Z	.011	6.25
47	MP-8	Z	.018	7.5
48	MP-9	Z	.007	6.25

**Member Point Loads (BLC 33 : 315 Wind - Ice)**

Member Label	Direction	Magnitude(k.k-ft)	Location(ft.%)	
1	MP-1	X	-.01	1.5
2	MP-2	X	-.019	.5
3	MP-2	X	-.009	2
4	MP-2	X	-.009	2
5	MP-3	X	-.006	1.5
6	MP-4	X	-.013	1.75
7	MP-5	X	-.027	.5
8	MP-5	X	-.008	2
9	MP-5	X	-.009	2
10	MP-6	X	-.007	1.75





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**Member Point Loads (BLC 33 : 315 Wind - Ice) (Continued)**

Member Label	Direction	Magnitude(k.k-ft)	Location(ft.%)	
11	MP-7	X	-0.07	1.75
12	MP-8	X	-0.12	.5
13	MP-8	X	-.01	2
14	MP-8	X	-.01	2
15	MP-9	X	-.005	1.75
16	MP-1	X	-.01	5.5
17	MP-2	X	-.019	7.5
18	MP-3	X	-.006	5.5
19	MP-4	X	-.013	6.25
20	MP-5	X	-.027	7.5
21	MP-6	X	-.007	6.25
22	MP-7	X	-.007	6.25
23	MP-8	X	-.012	7.5
24	MP-9	X	-.005	6.25
25	MP-1	Z	.01	1.5
26	MP-2	Z	.019	.5
27	MP-2	Z	.009	2
28	MP-2	Z	.009	2
29	MP-3	Z	.006	1.5
30	MP-4	Z	.013	1.75
31	MP-5	Z	.027	.5
32	MP-5	Z	.008	2
33	MP-5	Z	.009	2
34	MP-6	Z	.007	1.75
35	MP-7	Z	.007	1.75
36	MP-8	Z	.012	.5
37	MP-8	Z	.01	2
38	MP-8	Z	.01	2
39	MP-9	Z	.005	1.75
40	MP-1	Z	.01	5.5
41	MP-2	Z	.019	7.5
42	MP-3	Z	.006	5.5
43	MP-4	Z	.013	6.25
44	MP-5	Z	.027	7.5
45	MP-6	Z	.007	6.25
46	MP-7	Z	.007	6.25
47	MP-8	Z	.012	7.5
48	MP-9	Z	.005	6.25

**Member Point Loads (BLC 34 : 330 Wind - Ice)**

Member Label	Direction	Magnitude(k.k-ft)	Location(ft.%)	
1	MP-1	X	-.015	1.5
2	MP-2	X	-.029	.5
3	MP-2	X	-.01	2
4	MP-2	X	-.011	2
5	MP-3	X	-.008	1.5
6	MP-4	X	-.015	1.75
7	MP-5	X	-.029	.5
8	MP-5	X	-.01	2
9	MP-5	X	-.011	2
10	MP-6	X	-.008	1.75
11	MP-7	X	-.009	1.75
12	MP-8	X	-.013	.5
13	MP-8	X	-.012	2
14	MP-8	X	-.013	2
15	MP-9	X	-.006	1.75



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**Member Point Loads (BLC 34 : 330 Wind - Ice) (Continued)**

Member Label	Direction	Magnitude(k.k-ft)	Location(ft.%)	
16	MP-1	X	-.015	5.5
17	MP-2	X	-.029	7.5
18	MP-3	X	-.008	5.5
19	MP-4	X	-.015	6.25
20	MP-5	X	-.029	7.5
21	MP-6	X	-.008	6.25
22	MP-7	X	-.009	6.25
23	MP-8	X	-.013	7.5
24	MP-9	X	-.006	6.25
25	MP-1	Z	.009	1.5
26	MP-2	Z	.017	.5
27	MP-2	Z	.006	2
28	MP-2	Z	.006	2
29	MP-3	Z	.005	1.5
30	MP-4	Z	.009	1.75
31	MP-5	Z	.017	.5
32	MP-5	Z	.006	2
33	MP-5	Z	.006	2
34	MP-6	Z	.005	1.75
35	MP-7	Z	.005	1.75
36	MP-8	Z	.007	.5
37	MP-8	Z	.007	2
38	MP-8	Z	.007	2
39	MP-9	Z	.004	1.75
40	MP-1	Z	.009	5.5
41	MP-2	Z	.017	7.5
42	MP-3	Z	.005	5.5
43	MP-4	Z	.009	6.25
44	MP-5	Z	.017	7.5
45	MP-6	Z	.005	6.25
46	MP-7	Z	.005	6.25
47	MP-8	Z	.007	7.5
48	MP-9	Z	.004	6.25

**Member Point Loads (BLC 37 : Seismic Load X)**

Member Label	Direction	Magnitude(k.k-ft)	Location(ft.%)	
1	MP-1	X	-.048	1.5
2	MP-2	X	-.064	.5
3	MP-2	X	-.073	2
4	MP-2	X	-.109	2
5	MP-3	X	-.086	1.5
6	MP-4	X	-.048	1.75
7	MP-5	X	-.064	.5
8	MP-5	X	-.073	2
9	MP-5	X	-.109	2
10	MP-6	X	-.086	1.75
11	MP-7	X	-.048	1.75
12	MP-8	X	-.064	.5
13	MP-8	X	-.073	2
14	MP-8	X	-.109	2
15	MP-9	X	-.086	1.75
16	MP-1	X	-.048	5.5
17	MP-2	X	-.064	7.5
18	MP-3	X	-.086	5.5
19	MP-4	X	-.048	6.25
20	MP-5	X	-.064	7.5



**Member Point Loads (BLC 37 : Seismic Load X) (Continued)**

Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]	
21	MP-6	X	-0.86	6.25
22	MP-7	X	-0.48	6.25
23	MP-8	X	-0.64	7.5
24	MP-9	X	-0.86	6.25

**Member Point Loads (BLC 38 : Seismic Load Z)**

Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]	
1	MP-1	Z	-0.48	1.5
2	MP-2	Z	-0.64	5
3	MP-2	Z	-0.73	2
4	MP-2	Z	-1.09	2
5	MP-3	Z	-0.86	1.5
6	MP-4	Z	-0.48	1.75
7	MP-5	Z	-0.64	5
8	MP-5	Z	-0.73	2
9	MP-5	Z	-1.09	2
10	MP-6	Z	-0.86	1.75
11	MP-7	Z	-0.48	1.75
12	MP-8	Z	-0.64	5
13	MP-8	Z	-0.73	2
14	MP-8	Z	-1.09	2
15	MP-9	Z	-0.86	1.75
16	MP-1	Z	-0.48	5.5
17	MP-2	Z	-0.64	7.5
18	MP-3	Z	-0.86	9.5
19	MP-4	Z	-0.48	6.25
20	MP-5	Z	-0.64	7.5
21	MP-6	Z	-0.86	6.25
22	MP-7	Z	-0.48	6.25
23	MP-8	Z	-0.64	7.5
24	MP-9	Z	-0.86	6.25

**Member Distributed Loads (BLC 2 : 0 Wind - No Ice)**

Member Label	Direction	Start Magnitude[k/ft. ...]	End Magnitude[k/ft.F. ...]	Start Location[ft.%]	End Location[ft.%]	
1	CP-1A	X	-0.007	-0.007	0	%100
2	CP-1B	X	-0.007	-0.007	0	%100
3	CP-2A	X	-0.007	-0.007	0	%100
4	CP-2B	X	-0.007	-0.007	0	%100
5	CP-3A	X	-0.015	-0.015	0	%100
6	CP-3B	X	-0.015	-0.015	0	%100
7	FFTH	X	-0.01	-0.01	0	%100
8	GSI-1A	X	-0.007	-0.007	0	%100
9	GSI-1B	X	-0.007	-0.007	0	%100
10	GSI-1C	X	-0.007	-0.007	0	%100
11	GSI-1D	X	-0.00613	-0.00613	0	%100
12	GSI-2A	X	-0.007	-0.007	0	%100
13	GSI-2B	X	-0.007	-0.007	0	%100
14	GSI-2C	X	-0.00613	-0.00613	0	%100
15	GSI-2D	X	-0.00613	-0.00613	0	%100
16	GSI-3A	X	-0.015	-0.015	0	%100
17	GSI-3B	X	-0.015	-0.015	0	%100
18	GSI-3C	X	-0.001	-0.001	0	%100
19	GSI-3D	X	-0.001	-0.001	0	%100
20	INT-1A	X	-0.006	-0.006	0	%100
21	INT-1B	X	-0.003	-0.003	0	%100



**Member Distributed Loads (BLC 2 : 0 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft. ...]	End Magnitude[k/ft.F. ...]	Start Location[ft.%]	End Location[ft.%]	
22	INT-2A	X	-0.003	-0.003	0	%100
23	INT-2B	X	-0.006	-0.006	0	%100
24	INT-3A	X	-0.003	-0.003	0	%100
25	INT-3B	X	-0.003	-0.003	0	%100
26	MP-1	X	-0.007	-0.007	0	%100
27	MP-2	X	-0.007	-0.007	0	%100
28	MP-3	X	-0.007	-0.007	0	%100
29	MP-4	X	-0.007	-0.007	0	%100
30	MP-5	X	-0.007	-0.007	0	%100
31	MP-6	X	-0.007	-0.007	0	%100
32	MP-7	X	-0.007	-0.007	0	%100
33	MP-8	X	-0.007	-0.007	0	%100
34	MP-9	X	-0.007	-0.007	0	%100
35	SA-1	X	-0.017	-0.017	0	%100
36	SA-2	X	-0.017	-0.017	0	%100
37	SA-3	X	0	0	0	%100
38	SF1-TH	X	-0.004	-0.004	0	%100
39	SF2-TH	X	-0.004	-0.004	0	%100
40	SB-1	X	-0.007	-0.007	0	%100
41	SB-2	X	-0.003	-0.003	0	%100
42	SR-3	X	-0.003	-0.003	0	%100
43	SRCP-1	X	-0.004	-0.004	0	%100
44	SRCP-2	X	-0.004	-0.004	0	%100
45	SRCP-3	X	-0.009	-0.009	0	%100

**Member Distributed Loads (BLC 3 : 30 Wind - No Ice)**

Member Label	Direction	Start Magnitude[k/ft. ...]	End Magnitude[k/ft.F. ...]	Start Location[ft.%]	End Location[ft.%]	
1	CP-1A	X	0	0	0	%100
2	CP-1B	X	0	0	0	%100
3	CP-2A	X	-0.011	-0.011	0	%100
4	CP-2B	X	-0.011	-0.011	0	%100
5	CP-3A	X	-0.011	-0.011	0	%100
6	CP-3B	X	-0.011	-0.011	0	%100
7	FFTH	X	-0.007	-0.007	0	%100
8	GSI-1A	X	0	0	0	%100
9	GSI-1B	X	0	0	0	%100
10	GSI-1C	X	0	0	0	%100
11	GSI-1D	X	0	0	0	%100
12	GSI-2A	X	-0.011	-0.011	0	%100
13	GSI-2B	X	-0.011	-0.011	0	%100
14	GSI-2C	X	-0.00919	-0.00919	0	%100
15	GSI-2D	X	-0.00919	-0.00919	0	%100
16	GSI-3A	X	-0.012	-0.012	0	%100
17	GSI-3B	X	-0.012	-0.012	0	%100
18	GSI-3C	X	-0.00919	-0.00919	0	%100
19	GSI-3D	X	-0.00919	-0.00919	0	%100
20	INT-1A	X	-0.005	-0.005	0	%100
21	INT-1B	X	-0.004	-0.004	0	%100
22	INT-2A	X	0	0	0	%100
23	INT-2B	X	-0.005	-0.005	0	%100
24	INT-3A	X	-0.004	-0.004	0	%100
25	INT-3B	X	-6e-6	-6e-6	0	%100
26	MP-1	X	-0.006	-0.006	0	%100
27	MP-2	X	-0.006	-0.006	0	%100
28	MP-3	X	-0.006	-0.006	0	%100
29	MP-4	X	-0.006	-0.006	0	%100



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**Member Distributed Loads (BLC 3 : 30 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude(k/ft...)	End Magnitude(k/ft.F...)	Start Location(ft.%)	End Location(ft.%)
30	MP-5	X	-0.06	-0.06	0
31	MP-6	X	-0.06	-0.06	0
32	MP-7	X	-0.06	-0.06	0
33	MP-8	X	-0.06	-0.06	0
34	MP-9	X	-0.06	-0.06	0
35	SA-1	X	-0.17	-0.17	0
36	SA-2	X	-0.08	-0.08	0
37	SA-3	X	-0.06	-0.06	0
38	SF1-TH	X	0	0	0
39	SF2-TH	X	-0.07	-0.07	0
40	SR-1	X	-0.05	-0.05	0
41	SR-2	X	0	0	0
42	SR-3	X	-0.05	-0.05	0
43	SRCP-1	X	0	0	0
44	SRCP-2	X	-0.06	-0.06	0
45	SRCP-3	X	-0.06	-0.06	0
46	CP-1A	Z	0	0	0
47	CP-1B	Z	0	0	0
48	CP-2A	Z	-0.06	-0.06	0
49	CP-2B	Z	-0.06	-0.06	0
50	CP-2A	Z	-0.06	-0.06	0
51	CP-3B	Z	-0.06	-0.06	0
52	FFTH	Z	-0.04	-0.04	0
53	GSI-1A	Z	0	0	0
54	GSI-1B	Z	0	0	0
55	GSI-1C	Z	0	0	0
56	GSI-1D	Z	0	0	0
57	GSI-2A	Z	-0.07	-0.07	0
58	GSI-2B	Z	-0.07	-0.07	0
59	GSI-2C	Z	-0.00531	-0.00531	0
60	GSI-2D	Z	-0.00531	-0.00531	0
61	GSI-3A	Z	-0.07	-0.07	0
62	GSI-3B	Z	-0.07	-0.07	0
63	GSI-3C	Z	-0.00531	-0.00531	0
64	GSI-3D	Z	-0.00531	-0.00531	0
65	INT-1A	Z	-0.03	-0.03	0
66	INT-1B	Z	-0.03	-0.03	0
67	INT-2A	Z	0	0	0
68	INT-2B	Z	-0.03	-0.03	0
69	INT-3A	Z	-0.03	-0.03	0
70	INT-3B	Z	-4e-6	-4e-6	0
71	MP-1	Z	-0.03	-0.03	0
72	MP-2	Z	-0.03	-0.03	0
73	MP-3	Z	-0.03	-0.03	0
74	MP-4	Z	-0.03	-0.03	0
75	MP-5	Z	-0.03	-0.03	0
76	MP-6	Z	-0.03	-0.03	0
77	MP-7	Z	-0.03	-0.03	0
78	MP-8	Z	-0.03	-0.03	0
79	MP-9	Z	-0.03	-0.03	0
80	SA-1	Z	-0.09	-0.09	0
81	SA-2	Z	-0.04	-0.04	0
82	SA-3	Z	-0.05	-0.05	0
83	SF1-TH	Z	0	0	0
84	SF2-TH	Z	-0.04	-0.04	0
85	SR-1	Z	-0.03	-0.03	0
86	SR-2	Z	0	0	0



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**Member Distributed Loads (BLC 3 : 30 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude(k/ft...)	End Magnitude(k/ft.F...)	Start Location(ft.%)	End Location(ft.%)
87	SR-3	Z	-0.03	-0.03	0
88	SRCP-1	Z	0	0	0
89	SRCP-2	Z	-0.04	-0.04	0
90	SRCP-3	Z	-0.04	-0.04	0

**Member Distributed Loads (BLC 4 : 45 Wind - No Ice)**

Member Label	Direction	Start Magnitude(k/ft...)	End Magnitude(k/ft.F...)	Start Location(ft.%)	End Location(ft.%)
1	CP-1A	X	-0.03	-0.03	0
2	CP-1B	X	-0.03	-0.03	0
3	CP-2A	X	-0.01	-0.01	0
4	CP-2B	X	-0.01	-0.01	0
5	CP-3A	X	-0.07	-0.07	0
6	CP-3B	X	-0.07	-0.07	0
7	FFTH	X	-0.05	-0.05	0
8	GSI-1A	X	-0.03	-0.03	0
9	GSI-1B	X	-0.03	-0.03	0
10	GSI-1C	X	-0.00224	-0.00224	0
11	GSI-1D	X	-0.00224	-0.00224	0
12	GSI-2A	X	-0.01	-0.01	0
13	GSI-2B	X	-0.01	-0.01	0
14	GSI-2C	X	-0.00837	-0.00837	0
15	GSI-2D	X	-0.00837	-0.00837	0
16	GSI-3A	X	-0.08	-0.08	0
17	GSI-3B	X	-0.08	-0.08	0
18	GSI-3C	X	-0.00613	-0.00613	0
19	GSI-3D	X	-0.00613	-0.00613	0
20	INT-1A	X	-0.03	-0.03	0
21	INT-1B	X	-0.04	-0.04	0
22	INT-2A	X	-0.00963	-0.00963	0
23	INT-2B	X	-0.03	-0.03	0
24	INT-3A	X	-0.04	-0.04	0
25	INT-3B	X	-0.00959	-0.00959	0
26	MP-1	X	-0.05	-0.05	0
27	MP-2	X	-0.05	-0.05	0
28	MP-3	X	-0.05	-0.05	0
29	MP-4	X	-0.05	-0.05	0
30	MP-5	X	-0.05	-0.05	0
31	MP-6	X	-0.05	-0.05	0
32	MP-7	X	-0.05	-0.05	0
33	MP-8	X	-0.05	-0.05	0
34	MP-9	X	-0.05	-0.05	0
35	SA-1	X	-0.13	-0.13	0
36	SA-2	X	-0.04	-0.04	0
37	SA-3	X	-0.07	-0.07	0
38	SF1-TH	X	-0.02	-0.02	0
39	SF2-TH	X	-0.06	-0.06	0
40	SR-1	X	-0.03	-0.03	0
41	SR-2	X	-0.01	-0.01	0
42	SR-3	X	-0.05	-0.05	0
43	SRCP-1	X	-0.01	-0.01	0
44	SRCP-2	X	-0.05	-0.05	0
45	SRCP-3	X	-0.04	-0.04	0
46	CP-1A	Z	-0.03	-0.03	0
47	CP-1B	Z	-0.03	-0.03	0
48	CP-2A	Z	-0.01	-0.01	0
49	CP-2B	Z	-0.01	-0.01	0



Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
 Job Number : TEP No. 25631.696298  
 Model Name : CCI BU No 876317

May 3, 2022  
 1:00 PM  
 Checked By: DC

**Member Distributed Loads (BLC 4 : 45 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft]	Start Location[ft.%]	End Location[ft.%]
50	CP-3A	Z	-0.07	-0.07	0 %100
51	CP-3B	Z	-0.07	-0.07	0 %100
52	FFTH	Z	-0.005	-0.005	0 %100
53	GSI-1A	Z	-0.003	-0.003	0 %100
54	GSI-1B	Z	-0.003	-0.003	0 %100
55	GSI-1C	Z	-0.00224	-0.00224	0 %100
56	GSI-1D	Z	-0.00224	-0.00224	0 %100
57	GSI-2A	Z	-0.01	-0.01	0 %100
58	GSI-2B	Z	-0.01	-0.01	0 %100
59	GSI-2C	Z	-0.000837	-0.000837	0 %100
60	GSI-2D	Z	-0.000837	-0.000837	0 %100
61	GSI-3A	Z	-0.008	-0.008	0 %100
62	GSI-3B	Z	-0.008	-0.008	0 %100
63	GSI-3C	Z	-0.00613	-0.00613	0 %100
64	GSI-3D	Z	-0.00613	-0.00613	0 %100
65	INT-1A	Z	-0.003	-0.003	0 %100
66	INT-1B	Z	-0.004	-0.004	0 %100
67	INT-2A	Z	-0.001	-0.001	0 %100
68	INT-2B	Z	-0.003	-0.003	0 %100
69	INT-3A	Z	-0.004	-0.004	0 %100
70	INT-3B	Z	-0.001	-0.001	0 %100
71	MP-1	Z	-0.005	-0.005	0 %100
72	MP-2	Z	-0.005	-0.005	0 %100
73	MP-3	Z	-0.005	-0.005	0 %100
74	MP-4	Z	-0.005	-0.005	0 %100
75	MP-5	Z	-0.005	-0.005	0 %100
76	MP-6	Z	-0.005	-0.005	0 %100
77	MP-7	Z	-0.005	-0.005	0 %100
78	MP-8	Z	-0.005	-0.005	0 %100
79	MP-9	Z	-0.005	-0.005	0 %100
80	SA-1	Z	-0.012	-0.012	0 %100
81	SA-2	Z	-0.003	-0.003	0 %100
82	SA-3	Z	-0.01	-0.01	0 %100
83	SF1-TH	Z	-0.002	-0.002	0 %100
84	SF2-TH	Z	-0.007	-0.007	0 %100
85	SR-1	Z	-0.003	-0.003	0 %100
86	SR-2	Z	-0.001	-0.001	0 %100
87	SR-3	Z	-0.005	-0.005	0 %100
88	SRCP-1	Z	-0.002	-0.002	0 %100
89	SRCP-2	Z	-0.006	-0.006	0 %100
90	SRCP-3	Z	-0.004	-0.004	0 %100

**Member Distributed Loads (BLC 5 : 60 Wind - No Ice)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft]	Start Location[ft.%]	End Location[ft.%]
1	CP-1A	X	-0.04	-0.04	0 %100
2	CP-1B	X	-0.04	-0.04	0 %100
3	CP-2A	X	-0.007	-0.007	0 %100
4	CP-2B	X	-0.007	-0.007	0 %100
5	CP-3A	X	-0.004	-0.004	0 %100
6	CP-3B	X	-0.004	-0.004	0 %100
7	FFTH	X	-0.002	-0.002	0 %100
8	GSI-1A	X	-0.004	-0.004	0 %100
9	GSI-1B	X	-0.004	-0.004	0 %100
10	GSI-1C	X	-0.00306	-0.00306	0 %100
11	GSI-1D	X	-0.00306	-0.00306	0 %100
12	GSI-2A	X	-0.007	-0.007	0 %100



Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
 Job Number : TEP No. 25631.696298  
 Model Name : CCI BU No 876317

May 3, 2022  
 1:00 PM  
 Checked By: DC

**Member Distributed Loads (BLC 5 : 60 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft]	Start Location[ft.%]	End Location[ft.%]
13	GSI-2C	X	-0.007	-0.007	0 %100
14	GSI-2D	X	-0.00613	-0.00613	0 %100
15	GSI-2D	X	-0.00613	-0.00613	0 %100
16	GSI-3A	X	-0.004	-0.004	0 %100
17	GSI-3B	X	-0.004	-0.004	0 %100
18	GSI-3C	X	-0.00306	-0.00306	0 %100
19	GSI-3D	X	-0.00306	-0.00306	0 %100
20	INT-1A	X	-0.002	-0.002	0 %100
21	INT-1B	X	-0.003	-0.003	0 %100
22	INT-2A	X	-0.001	-0.001	0 %100
23	INT-2B	X	-0.002	-0.002	0 %100
24	INT-3A	X	-0.003	-0.003	0 %100
25	INT-3B	X	-0.001	-0.001	0 %100
26	MP-1	X	-0.003	-0.003	0 %100
27	MP-2	X	-0.003	-0.003	0 %100
28	MP-3	X	-0.003	-0.003	0 %100
29	MP-4	X	-0.003	-0.003	0 %100
30	MP-5	X	-0.003	-0.003	0 %100
31	MP-6	X	-0.003	-0.003	0 %100
32	MP-7	X	-0.003	-0.003	0 %100
33	MP-8	X	-0.003	-0.003	0 %100
34	MP-9	X	-0.003	-0.003	0 %100
35	SA-1	X	-0.008	-0.008	0 %100
36	SA-2	X	0	0	0 %100
37	SA-3	X	-0.006	-0.006	0 %100
38	SF1-TH	X	-0.002	-0.002	0 %100
39	SF2-TH	X	-0.004	-0.004	0 %100
40	SR-1	X	-0.002	-0.002	0 %100
41	SR-2	X	-0.002	-0.002	0 %100
42	SR-3	X	-0.003	-0.003	0 %100
43	SRCP-1	X	-0.002	-0.002	0 %100
44	SRCP-2	X	-0.004	-0.004	0 %100
45	SRCP-3	X	-0.002	-0.002	0 %100
46	CP-1A	Z	-0.006	-0.006	0 %100
47	CP-1B	Z	-0.006	-0.006	0 %100
48	CP-2A	Z	-0.013	-0.013	0 %100
49	CP-2B	Z	-0.013	-0.013	0 %100
50	CP-3A	Z	-0.006	-0.006	0 %100
51	CP-3B	Z	-0.006	-0.006	0 %100
52	FFTH	Z	-0.004	-0.004	0 %100
53	GSI-1A	Z	-0.007	-0.007	0 %100
54	GSI-1B	Z	-0.007	-0.007	0 %100
55	GSI-1C	Z	-0.00531	-0.00531	0 %100
56	GSI-1D	Z	-0.00531	-0.00531	0 %100
57	GSI-2A	Z	-0.013	-0.013	0 %100
58	GSI-2B	Z	-0.013	-0.013	0 %100
59	GSI-2C	Z	-0.001	-0.001	0 %100
60	GSI-2D	Z	-0.001	-0.001	0 %100
61	GSI-3A	Z	-0.007	-0.007	0 %100
62	GSI-3B	Z	-0.007	-0.007	0 %100
63	GSI-3C	Z	-0.00531	-0.00531	0 %100
64	GSI-3D	Z	-0.00531	-0.00531	0 %100
65	INT-1A	Z	-0.003	-0.003	0 %100
66	INT-1B	Z	-0.005	-0.005	0 %100
67	INT-2A	Z	-0.003	-0.003	0 %100
68	INT-2B	Z	-0.003	-0.003	0 %100
69	INT-3A	Z	-0.005	-0.005	0 %100



**Member Distributed Loads (BLC 5 : 60 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude(k/ft...)	End Magnitude(k/ft.F...)	Start Location(ft.%)	End Location(ft.%)	
70	INT-3B	Z	-0.03	-0.03	0	%100
71	MP-1	Z	-0.06	-0.06	0	%100
72	MP-2	Z	-0.06	-0.06	0	%100
73	MP-3	Z	-0.06	-0.06	0	%100
74	MP-4	Z	-0.06	-0.06	0	%100
75	MP-5	Z	-0.06	-0.06	0	%100
76	MP-6	Z	-0.06	-0.06	0	%100
77	MP-7	Z	-0.06	-0.06	0	%100
78	MP-8	Z	-0.06	-0.06	0	%100
79	MP-9	Z	-0.06	-0.06	0	%100
80	SA-1	Z	-0.13	-0.13	0	%100
81	SA-2	Z	0	0	0	%100
82	SA-3	Z	-0.15	-0.15	0	%100
83	SF1-TH	Z	-0.04	-0.04	0	%100
84	SF2-TH	Z	-0.08	-0.08	0	%100
85	SR-1	Z	-0.03	-0.03	0	%100
86	SR-2	Z	-0.03	-0.03	0	%100
87	SR-3	Z	-0.06	-0.06	0	%100
88	SRCP-1	Z	-0.04	-0.04	0	%100
89	SRCP-2	Z	-0.07	-0.07	0	%100
90	SRCP-3	Z	-0.04	-0.04	0	%100

**Member Distributed Loads (BLC 6 : 90 Wind - No Ice)**

Member Label	Direction	Start Magnitude(k/ft...)	End Magnitude(k/ft.F...)	Start Location(ft.%)	End Location(ft.%)	
1	CP-1A	Z	-0.13	-0.13	0	%100
2	CP-1B	Z	-0.13	-0.13	0	%100
3	CP-2A	Z	-0.13	-0.13	0	%100
4	CP-2B	Z	-0.13	-0.13	0	%100
5	CP-3A	Z	0	0	0	%100
6	CP-3B	Z	0	0	0	%100
7	FFTH	Z	0	0	0	%100
8	GSI-1A	Z	-0.13	-0.13	0	%100
9	GSI-1B	Z	-0.13	-0.13	0	%100
10	GSI-1C	Z	-0.01	-0.01	0	%100
11	GSI-1D	Z	-0.01	-0.01	0	%100
12	GSI-2A	Z	-0.13	-0.13	0	%100
13	GSI-2B	Z	-0.13	-0.13	0	%100
14	GSI-2C	Z	-0.01	-0.01	0	%100
15	GSI-2D	Z	-0.01	-0.01	0	%100
16	GSI-3A	Z	0	0	0	%100
17	GSI-3B	Z	0	0	0	%100
18	GSI-3C	Z	0	0	0	%100
19	GSI-3D	Z	0	0	0	%100
20	INT-1A	Z	0	0	0	%100
21	INT-1B	Z	-0.05	-0.05	0	%100
22	INT-2A	Z	-0.05	-0.05	0	%100
23	INT-2B	Z	0	0	0	%100
24	INT-3A	Z	-0.05	-0.05	0	%100
25	INT-3B	Z	-0.05	-0.05	0	%100
26	MP-1	Z	-0.07	-0.07	0	%100
27	MP-2	Z	-0.07	-0.07	0	%100
28	MP-3	Z	-0.07	-0.07	0	%100
29	MP-4	Z	-0.07	-0.07	0	%100
30	MP-5	Z	-0.07	-0.07	0	%100
31	MP-6	Z	-0.07	-0.07	0	%100
32	MP-7	Z	-0.07	-0.07	0	%100



**Member Distributed Loads (BLC 6 : 90 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude(k/ft...)	End Magnitude(k/ft.F...)	Start Location(ft.%)	End Location(ft.%)	
33	MP-8	Z	-0.07	-0.07	0	%100
34	MP-9	Z	-0.07	-0.07	0	%100
35	SA-1	Z	-0.09	-0.09	0	%100
36	SA-2	Z	-0.09	-0.09	0	%100
37	SA-3	Z	-0.2	-0.2	0	%100
38	SF1-TH	Z	-0.08	-0.08	0	%100
39	SF2-TH	Z	-0.08	-0.08	0	%100
40	SR-1	Z	0	0	0	%100
41	SR-2	Z	-0.06	-0.06	0	%100
42	SR-3	Z	-0.06	-0.06	0	%100
43	SRCP-1	Z	-0.07	-0.07	0	%100
44	SRCP-2	Z	-0.07	-0.07	0	%100
45	SRCP-3	Z	0	0	0	%100

**Member Distributed Loads (BLC 7 : 120 Wind - No Ice)**

Member Label	Direction	Start Magnitude(k/ft...)	End Magnitude(k/ft.F...)	Start Location(ft.%)	End Location(ft.%)	
1	CP-1A	X	0.07	0.07	0	%100
2	CP-1B	X	0.07	0.07	0	%100
3	CP-2A	X	0.04	0.04	0	%100
4	CP-2B	X	0.04	0.04	0	%100
5	CP-3A	X	0.04	0.04	0	%100
6	CP-3B	X	0.04	0.04	0	%100
7	FFTH	X	0.02	0.02	0	%100
8	GSI-1A	X	0.07	0.07	0	%100
9	GSI-1B	X	0.07	0.07	0	%100
10	GSI-1C	X	0.00613	0.00613	0	%100
11	GSI-1D	X	0.00613	0.00613	0	%100
12	GSI-2A	X	0.04	0.04	0	%100
13	GSI-2B	X	0.04	0.04	0	%100
14	GSI-2C	X	0.00306	0.00306	0	%100
15	GSI-2D	X	0.00306	0.00306	0	%100
16	GSI-3A	X	0.04	0.04	0	%100
17	GSI-3B	X	0.04	0.04	0	%100
18	GSI-3C	X	0.00306	0.00306	0	%100
19	GSI-3D	X	0.00306	0.00306	0	%100
20	INT-1A	X	0.02	0.02	0	%100
21	INT-1B	X	0.01	0.01	0	%100
22	INT-2A	X	0.03	0.03	0	%100
23	INT-2B	X	0.02	0.02	0	%100
24	INT-3A	X	0.01	0.01	0	%100
25	INT-3B	X	0.03	0.03	0	%100
26	MP-1	X	0.03	0.03	0	%100
27	MP-2	X	0.03	0.03	0	%100
28	MP-3	X	0.03	0.03	0	%100
29	MP-4	X	0.03	0.03	0	%100
30	MP-5	X	0.03	0.03	0	%100
31	MP-6	X	0.03	0.03	0	%100
32	MP-7	X	0.03	0.03	0	%100
33	MP-8	X	0.03	0.03	0	%100
34	MP-9	X	0.03	0.03	0	%100
35	SA-1	X	0	0	0	%100
36	SA-2	X	0.08	0.08	0	%100
37	SA-3	X	0.06	0.06	0	%100
38	SF1-TH	X	0.04	0.04	0	%100
39	SF2-TH	X	0.02	0.02	0	%100
40	SR-1	X	0.02	0.02	0	%100



Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
 Job Number : TEP No. 25631.696298  
 Model Name : CCI BU No 876317

May 3, 2022  
 1:00 PM  
 Checked By: DC

**Member Distributed Loads (BLC 7 : 120 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude(k/ft...)	End Magnitude(k/ft.F...)	Start Location(ft.%)	End Location(ft.%)	
41	SR-2	X	.003	.003	0	%100
42	SR-3	X	.002	.002	0	%100
43	SRCP-1	X	.004	.004	0	%100
44	SRCP-2	X	.002	.002	0	%100
45	SRCP-3	X	.002	.002	0	%100
46	CP-1A	Z	-.013	-.013	0	%100
47	CP-1B	Z	-.013	-.013	0	%100
48	CP-2A	Z	-.006	-.006	0	%100
49	CP-2B	Z	-.006	-.006	0	%100
50	CP-3A	Z	-.006	-.006	0	%100
51	CP-3B	Z	-.006	-.006	0	%100
52	FFTH	Z	-.004	-.004	0	%100
53	GSI-1A	Z	-.013	-.013	0	%100
54	GSI-1B	Z	-.013	-.013	0	%100
55	GSI-1C	Z	-.001	-.001	0	%100
56	GSI-1D	Z	-.001	-.001	0	%100
57	GSI-2A	Z	-.007	-.007	0	%100
58	GSI-2B	Z	-.007	-.007	0	%100
59	GSI-2C	Z	-.000531	-.000531	0	%100
60	GSI-2D	Z	-.000531	-.000531	0	%100
61	GSI-3A	Z	-.007	-.007	0	%100
62	GSI-3B	Z	-.007	-.007	0	%100
63	GSI-3C	Z	-.000531	-.000531	0	%100
64	GSI-3D	Z	-.000531	-.000531	0	%100
65	INT-1A	Z	-.003	-.003	0	%100
66	INT-1B	Z	-.003	-.003	0	%100
67	INT-2A	Z	-.005	-.005	0	%100
68	INT-2B	Z	-.003	-.003	0	%100
69	INT-3A	Z	-.003	-.003	0	%100
70	INT-3B	Z	-.005	-.005	0	%100
71	MP-1	Z	-.006	-.006	0	%100
72	MP-2	Z	-.006	-.006	0	%100
73	MP-3	Z	-.006	-.006	0	%100
74	MP-4	Z	-.006	-.006	0	%100
75	MP-5	Z	-.006	-.006	0	%100
76	MP-6	Z	-.006	-.006	0	%100
77	MP-7	Z	-.006	-.006	0	%100
78	MP-8	Z	-.006	-.006	0	%100
79	MP-9	Z	-.006	-.006	0	%100
80	SA-1	Z	0	0	0	%100
81	SA-2	Z	-.013	-.013	0	%100
82	SA-3	Z	-.015	-.015	0	%100
83	SF1-TH	Z	-.008	-.008	0	%100
84	SF2-TH	Z	-.004	-.004	0	%100
85	SR-1	Z	-.003	-.003	0	%100
86	SR-2	Z	-.006	-.006	0	%100
87	SR-3	Z	-.003	-.003	0	%100
88	SRCP-1	Z	-.007	-.007	0	%100
89	SRCP-2	Z	-.004	-.004	0	%100
90	SRCP-3	Z	-.004	-.004	0	%100

**Member Distributed Loads (BLC 8 : 135 Wind - No Ice)**

Member Label	Direction	Start Magnitude(k/ft...)	End Magnitude(k/ft.F...)	Start Location(ft.%)	End Location(ft.%)	
1	CP-1A	X	.01	.01	0	%100
2	CP-1B	X	.01	.01	0	%100
3	CP-2A	X	.003	.003	0	%100



Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
 Job Number : TEP No. 25631.696298  
 Model Name : CCI BU No 876317

May 3, 2022  
 1:00 PM  
 Checked By: DC

**Member Distributed Loads (BLC 8 : 135 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude(k/ft...)	End Magnitude(k/ft.F...)	Start Location(ft.%)	End Location(ft.%)	
4	CP-2B	X	.003	.003	0	%100
5	CP-3A	X	.007	.007	0	%100
6	CP-3B	X	.007	.007	0	%100
7	FFTH	X	.005	.005	0	%100
8	GSI-1A	X	.01	.01	0	%100
9	GSI-1B	X	.01	.01	0	%100
10	GSI-1C	X	.000837	.000837	0	%100
11	GSI-1D	X	.000837	.000837	0	%100
12	GSI-2A	X	.003	.003	0	%100
13	GSI-2B	X	.003	.003	0	%100
14	GSI-2C	X	.000224	.000224	0	%100
15	GSI-2D	X	.000224	.000224	0	%100
16	GSI-3A	X	.008	.008	0	%100
17	GSI-3B	X	.008	.008	0	%100
18	GSI-3C	X	.000613	.000613	0	%100
19	GSI-3D	X	.000613	.000613	0	%100
20	INT-1A	X	.003	.003	0	%100
21	INT-1B	X	.000963	.000963	0	%100
22	INT-2A	X	.004	.004	0	%100
23	INT-2B	X	.003	.003	0	%100
24	INT-3A	X	.000959	.000959	0	%100
25	INT-3B	X	.004	.004	0	%100
26	MP-1	X	.005	.005	0	%100
27	MP-2	X	.005	.005	0	%100
28	MP-3	X	.005	.005	0	%100
29	MP-4	X	.005	.005	0	%100
30	MP-5	X	.005	.005	0	%100
31	MP-6	X	.005	.005	0	%100
32	MP-7	X	.005	.005	0	%100
33	MP-8	X	.005	.005	0	%100
34	MP-9	X	.005	.005	0	%100
35	SA-1	X	.004	.004	0	%100
36	SA-2	X	.013	.013	0	%100
37	SA-3	X	.007	.007	0	%100
38	SF1-TH	X	.006	.006	0	%100
39	SF2-TH	X	.002	.002	0	%100
40	SR-1	X	.003	.003	0	%100
41	SR-2	X	.005	.005	0	%100
42	SR-3	X	.001	.001	0	%100
43	SRCP-1	X	.005	.005	0	%100
44	SRCP-2	X	.001	.001	0	%100
45	SRCP-3	X	.004	.004	0	%100
46	CP-1A	Z	-.01	-.01	0	%100
47	CP-1B	Z	-.01	-.01	0	%100
48	CP-2A	Z	-.003	-.003	0	%100
49	CP-2B	Z	-.003	-.003	0	%100
50	CP-3A	Z	-.007	-.007	0	%100
51	CP-3B	Z	-.007	-.007	0	%100
52	FFTH	Z	-.005	-.005	0	%100
53	GSI-1A	Z	-.01	-.01	0	%100
54	GSI-1B	Z	-.01	-.01	0	%100
55	GSI-1C	Z	-.000837	-.000837	0	%100
56	GSI-1D	Z	-.000837	-.000837	0	%100
57	GSI-2A	Z	-.003	-.003	0	%100
58	GSI-2B	Z	-.003	-.003	0	%100
59	GSI-2C	Z	-.000224	-.000224	0	%100
60	GSI-2D	Z	-.000224	-.000224	0	%100





Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
 Job Number : TEP No. 25631.696298  
 Model Name : CCI BU No 876317

May 3, 2022  
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**Member Distributed Loads (BLC 8 : 135 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft.F]	Start Location[ft.%]	End Location[ft.%]	
61	GSI-3A	Z	-0.08	-0.08	0	%100
62	GSI-3B	Z	-0.08	-0.08	0	%100
63	GSI-3C	Z	-0.00613	-0.00613	0	%100
64	GSI-3D	Z	-0.00613	-0.00613	0	%100
65	INT-1A	Z	-0.03	-0.03	0	%100
66	INT-1B	Z	-0.01	-0.01	0	%100
67	INT-2A	Z	-0.04	-0.04	0	%100
68	INT-2B	Z	-0.03	-0.03	0	%100
69	INT-3A	Z	-0.01	-0.01	0	%100
70	INT-3B	Z	-0.04	-0.04	0	%100
71	MP-1	Z	-0.05	-0.05	0	%100
72	MP-2	Z	-0.05	-0.05	0	%100
73	MP-3	Z	-0.05	-0.05	0	%100
74	MP-4	Z	-0.05	-0.05	0	%100
75	MP-5	Z	-0.05	-0.05	0	%100
76	MP-6	Z	-0.05	-0.05	0	%100
77	MP-7	Z	-0.05	-0.05	0	%100
78	MP-8	Z	-0.05	-0.05	0	%100
79	MP-9	Z	-0.05	-0.05	0	%100
80	SA-1	Z	-0.03	-0.03	0	%100
81	SA-2	Z	-0.12	-0.12	0	%100
82	SA-3	Z	-0.01	-0.01	0	%100
83	SF1-TH	Z	-0.07	-0.07	0	%100
84	SF2-TH	Z	-0.02	-0.02	0	%100
85	SR-1	Z	-0.03	-0.03	0	%100
86	SR-2	Z	-0.05	-0.05	0	%100
87	SR-3	Z	-0.01	-0.01	0	%100
88	SRCP-1	Z	-0.06	-0.06	0	%100
89	SRCP-2	Z	-0.02	-0.02	0	%100
90	SRCP-3	Z	-0.04	-0.04	0	%100

**Member Distributed Loads (BLC 9 : 150 Wind - No Ice)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft.F]	Start Location[ft.%]	End Location[ft.%]	
1	CP-1A	X	0.11	0.11	0	%100
2	CP-1B	X	0.11	0.11	0	%100
3	CP-2A	X	0	0	0	%100
4	CP-2B	X	0	0	0	%100
5	CP-3A	X	0.11	0.11	0	%100
6	CP-3B	X	0.11	0.11	0	%100
7	FETH	X	0.07	0.07	0	%100
8	GSI-1A	X	0.11	0.11	0	%100
9	GSI-1B	X	0.11	0.11	0	%100
10	GSI-1C	X	0.00919	0.00919	0	%100
11	GSI-1D	X	0.00919	0.00919	0	%100
12	GSI-2A	X	0	0	0	%100
13	GSI-2B	X	0	0	0	%100
14	GSI-2C	X	0	0	0	%100
15	GSI-2D	X	0	0	0	%100
16	GSI-3A	X	0.12	0.12	0	%100
17	GSI-3B	X	0.12	0.12	0	%100
18	GSI-3C	X	0.00919	0.00919	0	%100
19	GSI-3D	X	0.00919	0.00919	0	%100
20	INT-1A	X	0.05	0.05	0	%100
21	INT-1B	X	0	0	0	%100
22	INT-2A	X	0.04	0.04	0	%100
23	INT-2B	X	0.05	0.05	0	%100



Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
 Job Number : TEP No. 25631.696298  
 Model Name : CCI BU No 876317

May 3, 2022  
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**Member Distributed Loads (BLC 9 : 150 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft.F]	Start Location[ft.%]	End Location[ft.%]	
24	INT-3A	X	6e-6	6e-6	0	%100
25	INT-3B	X	0.04	0.04	0	%100
26	MP-1	X	0.06	0.06	0	%100
27	MP-2	X	0.06	0.06	0	%100
28	MP-3	X	0.06	0.06	0	%100
29	MP-4	X	0.06	0.06	0	%100
30	MP-5	X	0.06	0.06	0	%100
31	MP-6	X	0.06	0.06	0	%100
32	MP-7	X	0.06	0.06	0	%100
33	MP-8	X	0.06	0.06	0	%100
34	MP-9	X	0.06	0.06	0	%100
35	SA-1	X	0.08	0.08	0	%100
36	SA-2	X	0.17	0.17	0	%100
37	SA-3	X	0.06	0.06	0	%100
38	SF1-TH	X	0.07	0.07	0	%100
39	SF2-TH	X	0	0	0	%100
40	SR-1	X	0.05	0.05	0	%100
41	SR-2	X	0.05	0.05	0	%100
42	SR-3	X	0	0	0	%100
43	SRCP-1	X	0.06	0.06	0	%100
44	SRCP-2	X	0	0	0	%100
45	SRCP-3	X	0.06	0.06	0	%100
46	CP-1A	Z	-0.06	-0.06	0	%100
47	CP-1B	Z	-0.06	-0.06	0	%100
48	CP-2A	Z	0	0	0	%100
49	CP-2B	Z	0	0	0	%100
50	CP-3A	Z	-0.06	-0.06	0	%100
51	CP-3B	Z	-0.06	-0.06	0	%100
52	FETH	Z	-0.04	-0.04	0	%100
53	GSI-1A	Z	-0.07	-0.07	0	%100
54	GSI-1B	Z	-0.07	-0.07	0	%100
55	GSI-1C	Z	-0.00531	-0.00531	0	%100
56	GSI-1D	Z	-0.00531	-0.00531	0	%100
57	GSI-2A	Z	0	0	0	%100
58	GSI-2B	Z	0	0	0	%100
59	GSI-2C	Z	0	0	0	%100
60	GSI-2D	Z	0	0	0	%100
61	GSI-3A	Z	-0.07	-0.07	0	%100
62	GSI-3B	Z	-0.07	-0.07	0	%100
63	GSI-3C	Z	-0.00531	-0.00531	0	%100
64	GSI-3D	Z	-0.00531	-0.00531	0	%100
65	INT-1A	Z	-0.03	-0.03	0	%100
66	INT-1B	Z	0	0	0	%100
67	INT-2A	Z	-0.03	-0.03	0	%100
68	INT-2B	Z	-0.03	-0.03	0	%100
69	INT-3A	Z	-4e-6	-4e-6	0	%100
70	INT-3B	Z	-0.03	-0.03	0	%100
71	MP-1	Z	-0.03	-0.03	0	%100
72	MP-2	Z	-0.03	-0.03	0	%100
73	MP-3	Z	-0.03	-0.03	0	%100
74	MP-4	Z	-0.03	-0.03	0	%100
75	MP-5	Z	-0.03	-0.03	0	%100
76	MP-6	Z	-0.03	-0.03	0	%100
77	MP-7	Z	-0.03	-0.03	0	%100
78	MP-8	Z	-0.03	-0.03	0	%100
79	MP-9	Z	-0.03	-0.03	0	%100
80	SA-1	Z	-0.04	-0.04	0	%100



Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
 Job Number : TEP No. 25631.696298  
 Model Name : CCI BU No 876317

May 3, 2022  
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**Member Distributed Loads (BLC 9 : 150 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude(k/ft...)	End Magnitude(k/ft.F...)	Start Location(ft.%)	End Location(ft.%)	
81	SA-2	Z	-0.09	-0.09	0	%100
82	SA-3	Z	-0.05	-0.05	0	%100
83	SF1-TH	Z	-0.04	-0.04	0	%100
84	SF2-TH	Z	0	0	0	%100
85	SR-1	Z	-0.03	-0.03	0	%100
86	SR-2	Z	-0.03	-0.03	0	%100
87	SR-3	Z	0	0	0	%100
88	SRCP-1	Z	-0.04	-0.04	0	%100
89	SRCP-2	Z	0	0	0	%100
90	SRCP-3	Z	-0.04	-0.04	0	%100

**Member Distributed Loads (BLC 10 : 180 Wind - No Ice)**

Member Label	Direction	Start Magnitude(k/ft...)	End Magnitude(k/ft.F...)	Start Location(ft.%)	End Location(ft.%)	
1	CP-1A	X	.007	.007	0	%100
2	CP-1B	X	.007	.007	0	%100
3	CP-2A	X	.007	.007	0	%100
4	CP-2B	X	.007	.007	0	%100
5	CP-3A	X	.015	.015	0	%100
6	CP-3B	X	.015	.015	0	%100
7	FFTH	X	.01	.01	0	%100
8	GSI-1A	X	.007	.007	0	%100
9	GSI-1B	X	.007	.007	0	%100
10	GSI-1C	X	.000613	.000613	0	%100
11	GSI-1D	X	.000613	.000613	0	%100
12	GSI-2A	X	.007	.007	0	%100
13	GSI-2B	X	.007	.007	0	%100
14	GSI-2C	X	.000613	.000613	0	%100
15	GSI-2D	X	.000613	.000613	0	%100
16	GSI-3A	X	.015	.015	0	%100
17	GSI-3B	X	.015	.015	0	%100
18	GSI-3C	X	.001	.001	0	%100
19	GSI-3D	X	.001	.001	0	%100
20	INT-1A	X	.006	.006	0	%100
21	INT-1B	X	.003	.003	0	%100
22	INT-2A	X	.003	.003	0	%100
23	INT-2B	X	.006	.006	0	%100
24	INT-3A	X	.003	.003	0	%100
25	INT-3B	X	.003	.003	0	%100
26	MP-1	X	.007	.007	0	%100
27	MP-2	X	.007	.007	0	%100
28	MP-3	X	.007	.007	0	%100
29	MP-4	X	.007	.007	0	%100
30	MP-5	X	.007	.007	0	%100
31	MP-6	X	.007	.007	0	%100
32	MP-7	X	.007	.007	0	%100
33	MP-8	X	.007	.007	0	%100
34	MP-9	X	.007	.007	0	%100
35	SA-1	X	.017	.017	0	%100
36	SA-2	X	.017	.017	0	%100
37	SA-3	X	0	0	0	%100
38	SF1-TH	X	.004	.004	0	%100
39	SF2-TH	X	.004	.004	0	%100
40	SR-1	X	.007	.007	0	%100
41	SR-2	X	.003	.003	0	%100
42	SR-3	X	.003	.003	0	%100
43	SRCP-1	X	.004	.004	0	%100



Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
 Job Number : TEP No. 25631.696298  
 Model Name : CCI BU No 876317

May 3, 2022  
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**Member Distributed Loads (BLC 10 : 180 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude(k/ft...)	End Magnitude(k/ft.F...)	Start Location(ft.%)	End Location(ft.%)	
44	SRCP-2	X	.004	.004	0	%100
45	SRCP-3	X	.009	.009	0	%100

**Member Distributed Loads (BLC 11 : 210 Wind - No Ice)**

Member Label	Direction	Start Magnitude(k/ft...)	End Magnitude(k/ft.F...)	Start Location(ft.%)	End Location(ft.%)	
1	CP-1A	X	0	0	0	%100
2	CP-1B	X	0	0	0	%100
3	CP-2A	X	.011	.011	0	%100
4	CP-2B	X	.011	.011	0	%100
5	CP-3A	X	.011	.011	0	%100
6	CP-3B	X	.011	.011	0	%100
7	FFTH	X	.007	.007	0	%100
8	GSI-1A	X	0	0	0	%100
9	GSI-1B	X	0	0	0	%100
10	GSI-1C	X	0	0	0	%100
11	GSI-1D	X	0	0	0	%100
12	GSI-2A	X	.011	.011	0	%100
13	GSI-2B	X	.011	.011	0	%100
14	GSI-2C	X	.000919	.000919	0	%100
15	GSI-2D	X	.000919	.000919	0	%100
16	GSI-3A	X	.012	.012	0	%100
17	GSI-3B	X	.012	.012	0	%100
18	GSI-3C	X	.000919	.000919	0	%100
19	GSI-3D	X	.000919	.000919	0	%100
20	INT-1A	X	.005	.005	0	%100
21	INT-1B	X	.004	.004	0	%100
22	INT-2A	X	0	0	0	%100
23	INT-2B	X	.005	.005	0	%100
24	INT-3A	X	.004	.004	0	%100
25	INT-3B	X	6e-6	6e-6	0	%100
26	MP-1	X	.006	.006	0	%100
27	MP-2	X	.006	.006	0	%100
28	MP-3	X	.006	.006	0	%100
29	MP-4	X	.006	.006	0	%100
30	MP-5	X	.006	.006	0	%100
31	MP-6	X	.006	.006	0	%100
32	MP-7	X	.006	.006	0	%100
33	MP-8	X	.006	.006	0	%100
34	MP-9	X	.006	.006	0	%100
35	SA-1	X	.017	.017	0	%100
36	SA-2	X	.008	.008	0	%100
37	SA-3	X	.006	.006	0	%100
38	SF1-TH	X	0	0	0	%100
39	SF2-TH	X	.007	.007	0	%100
40	SR-1	X	.005	.005	0	%100
41	SR-2	X	0	0	0	%100
42	SR-3	X	.005	.005	0	%100
43	SRCP-1	X	0	0	0	%100
44	SRCP-2	X	.006	.006	0	%100
45	SRCP-3	X	.006	.006	0	%100
46	CP-1A	Z	0	0	0	%100
47	CP-1B	Z	0	0	0	%100
48	CP-2A	Z	.006	.006	0	%100
49	CP-2B	Z	.006	.006	0	%100
50	CP-3A	Z	.006	.006	0	%100
51	CP-3B	Z	.006	.006	0	%100



Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
 Job Number : TEP No. 25631.696298  
 Model Name : CCI BU No 876317

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**Member Distributed Loads (BLC 11 : 210 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft]	Start Location[ft.%]	End Location[ft.%]
52	FFTH	Z	.004	.004	0
53	GSI-1A	Z	0	0	0
54	GSI-1B	Z	0	0	0
55	GSI-1C	Z	0	0	0
56	GSI-1D	Z	0	0	0
57	GSI-2A	Z	.007	.007	0
58	GSI-2B	Z	.007	.007	0
59	GSI-2C	Z	.000531	.000531	0
60	GSI-2D	Z	.000531	.000531	0
61	GSI-3A	Z	.007	.007	0
62	GSI-3B	Z	.007	.007	0
63	GSI-3C	Z	.000531	.000531	0
64	GSI-3D	Z	.000531	.000531	0
65	INT-1A	Z	.003	.003	0
66	INT-1B	Z	.003	.003	0
67	INT-2A	Z	0	0	0
68	INT-2B	Z	.003	.003	0
69	INT-3A	Z	.003	.003	0
70	INT-3B	Z	4e-6	4e-6	0
71	MP-1	Z	.003	.003	0
72	MP-2	Z	.003	.003	0
73	MP-3	Z	.003	.003	0
74	MP-4	Z	.003	.003	0
75	MP-5	Z	.003	.003	0
76	MP-6	Z	.003	.003	0
77	MP-7	Z	.003	.003	0
78	MP-8	Z	.003	.003	0
79	MP-9	Z	.003	.003	0
80	SA-1	Z	.009	.009	0
81	SA-2	Z	.004	.004	0
82	SA-3	Z	.005	.005	0
83	SF1-TH	Z	0	0	0
84	SF2-TH	Z	.004	.004	0
85	SR-1	Z	.003	.003	0
86	SR-2	Z	0	0	0
87	SR-3	Z	.003	.003	0
88	SRCP-1	Z	0	0	0
89	SRCP-2	Z	.004	.004	0
90	SRCP-3	Z	.004	.004	0

**Member Distributed Loads (BLC 12 : 225 Wind - No Ice)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft]	Start Location[ft.%]	End Location[ft.%]
1	CP-1A	X	.003	.003	0
2	CP-1B	X	.003	.003	0
3	CP-2A	X	.01	.01	0
4	CP-2B	X	.01	.01	0
5	CP-3A	X	.007	.007	0
6	CP-3B	X	.007	.007	0
7	FFTH	X	.005	.005	0
8	GSI-1A	X	.003	.003	0
9	GSI-1B	X	.003	.003	0
10	GSI-1C	X	.000224	.000224	0
11	GSI-1D	X	.000224	.000224	0
12	GSI-2A	X	.01	.01	0
13	GSI-2B	X	.01	.01	0
14	GSI-2C	X	.000837	.000837	0



Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
 Job Number : TEP No. 25631.696298  
 Model Name : CCI BU No 876317

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**Member Distributed Loads (BLC 12 : 225 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft]	Start Location[ft.%]	End Location[ft.%]
15	GSI-2D	X	.000837	.000837	0
16	GSI-3A	X	.008	.008	0
17	GSI-3B	X	.008	.008	0
18	GSI-3C	X	.000613	.000613	0
19	GSI-3D	X	.000613	.000613	0
20	INT-1A	X	.003	.003	0
21	INT-1B	X	.004	.004	0
22	INT-2A	X	.000963	.000963	0
23	INT-2B	X	.003	.003	0
24	INT-3A	X	.004	.004	0
25	INT-3B	X	.000959	.000959	0
26	MP-1	X	.005	.005	0
27	MP-2	X	.005	.005	0
28	MP-3	X	.005	.005	0
29	MP-4	X	.005	.005	0
30	MP-5	X	.005	.005	0
31	MP-6	X	.005	.005	0
32	MP-7	X	.005	.005	0
33	MP-8	X	.005	.005	0
34	MP-9	X	.005	.005	0
35	SA-1	X	.013	.013	0
36	SA-2	X	.004	.004	0
37	SA-3	X	.007	.007	0
38	SF1-TH	X	.002	.002	0
39	SF2-TH	X	.006	.006	0
40	SR-1	X	.003	.003	0
41	SR-2	X	.001	.001	0
42	SR-3	X	.005	.005	0
43	SRCP-1	X	.001	.001	0
44	SRCP-2	X	.005	.005	0
45	SRCP-3	X	.004	.004	0
46	CP-1A	Z	.003	.003	0
47	CP-1B	Z	.003	.003	0
48	CP-2A	Z	.01	.01	0
49	CP-2B	Z	.01	.01	0
50	CP-3A	Z	.007	.007	0
51	CP-3B	Z	.007	.007	0
52	FFTH	Z	.005	.005	0
53	GSI-1A	Z	.003	.003	0
54	GSI-1B	Z	.003	.003	0
55	GSI-1C	Z	.000224	.000224	0
56	GSI-1D	Z	.000224	.000224	0
57	GSI-2A	Z	.01	.01	0
58	GSI-2B	Z	.01	.01	0
59	GSI-2C	Z	.000837	.000837	0
60	GSI-2D	Z	.000837	.000837	0
61	GSI-3A	Z	.008	.008	0
62	GSI-3B	Z	.008	.008	0
63	GSI-3C	Z	.000613	.000613	0
64	GSI-3D	Z	.000613	.000613	0
65	INT-1A	Z	.003	.003	0
66	INT-1B	Z	.004	.004	0
67	INT-2A	Z	.001	.001	0
68	INT-2B	Z	.003	.003	0
69	INT-3A	Z	.004	.004	0
70	INT-3B	Z	.001	.001	0
71	MP-1	Z	.005	.005	0



Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
 Job Number : TEP No. 25631.696298  
 Model Name : CCI BU No 876317

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**Member Distributed Loads (BLC 12 : 225 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft]	Start Location[ft.%]	End Location[ft.%]	
72	MP-2	Z	.005	.005	0	%100
73	MP-3	Z	.005	.005	0	%100
74	MP-4	Z	.005	.005	0	%100
75	MP-5	Z	.005	.005	0	%100
76	MP-6	Z	.005	.005	0	%100
77	MP-7	Z	.005	.005	0	%100
78	MP-8	Z	.005	.005	0	%100
79	MP-9	Z	.005	.005	0	%100
80	SA-1	Z	.012	.012	0	%100
81	SA-2	Z	.003	.003	0	%100
82	SA-3	Z	.01	.01	0	%100
83	SF1-TH	Z	.002	.002	0	%100
84	SF2-TH	Z	.007	.007	0	%100
85	SR-1	Z	.003	.003	0	%100
86	SR-2	Z	.001	.001	0	%100
87	SR-3	Z	.005	.005	0	%100
88	SRCP-1	Z	.002	.002	0	%100
89	SRCP-2	Z	.006	.006	0	%100
90	SRCP-3	Z	.004	.004	0	%100

**Member Distributed Loads (BLC 13 : 240 Wind - No Ice)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft]	Start Location[ft.%]	End Location[ft.%]	
1	CP-1A	X	.004	.004	0	%100
2	CP-1B	X	.004	.004	0	%100
3	CP-2A	X	.007	.007	0	%100
4	CP-2B	X	.007	.007	0	%100
5	CP-3A	X	.004	.004	0	%100
6	CP-3B	X	.004	.004	0	%100
7	FFTH	X	.002	.002	0	%100
8	GSI-1A	X	.004	.004	0	%100
9	GSI-1B	X	.004	.004	0	%100
10	GSI-1C	X	.000306	.000306	0	%100
11	GSI-1D	X	.000306	.000306	0	%100
12	GSI-2A	X	.007	.007	0	%100
13	GSI-2B	X	.007	.007	0	%100
14	GSI-2C	X	.000613	.000613	0	%100
15	GSI-2D	X	.000613	.000613	0	%100
16	GSI-3A	X	.004	.004	0	%100
17	GSI-3B	X	.004	.004	0	%100
18	GSI-3C	X	.000306	.000306	0	%100
19	GSI-3D	X	.000306	.000306	0	%100
20	INT-1A	X	.002	.002	0	%100
21	INT-1B	X	.003	.003	0	%100
22	INT-2A	X	.001	.001	0	%100
23	INT-2B	X	.002	.002	0	%100
24	INT-3A	X	.003	.003	0	%100
25	INT-3B	X	.001	.001	0	%100
26	MP-1	X	.003	.003	0	%100
27	MP-2	X	.003	.003	0	%100
28	MP-3	X	.003	.003	0	%100
29	MP-4	X	.003	.003	0	%100
30	MP-5	X	.003	.003	0	%100
31	MP-6	X	.003	.003	0	%100
32	MP-7	X	.003	.003	0	%100
33	MP-8	X	.003	.003	0	%100
34	MP-9	X	.003	.003	0	%100



Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
 Job Number : TEP No. 25631.696298  
 Model Name : CCI BU No 876317

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**Member Distributed Loads (BLC 13 : 240 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft]	Start Location[ft.%]	End Location[ft.%]	
35	SA-1	X	.008	.008	0	%100
36	SA-2	X	0	0	0	%100
37	SA-3	X	.006	.006	0	%100
38	SF1-TH	X	.002	.002	0	%100
39	SF2-TH	X	.004	.004	0	%100
40	SR-1	X	.002	.002	0	%100
41	SR-2	X	.002	.002	0	%100
42	SR-3	X	.003	.003	0	%100
43	SRCP-1	X	.002	.002	0	%100
44	SRCP-2	X	.004	.004	0	%100
45	SRCP-3	X	.002	.002	0	%100
46	CP-1A	Z	.006	.006	0	%100
47	CP-1B	Z	.006	.006	0	%100
48	CP-2A	Z	.013	.013	0	%100
49	CP-2B	Z	.013	.013	0	%100
50	CP-3A	Z	.006	.006	0	%100
51	CP-3B	Z	.006	.006	0	%100
52	FFTH	Z	.004	.004	0	%100
53	GSI-1A	Z	.007	.007	0	%100
54	GSI-1B	Z	.007	.007	0	%100
55	GSI-1C	Z	.000531	.000531	0	%100
56	GSI-1D	Z	.000531	.000531	0	%100
57	GSI-2A	Z	.013	.013	0	%100
58	GSI-2B	Z	.013	.013	0	%100
59	GSI-2C	Z	.001	.001	0	%100
60	GSI-2D	Z	.001	.001	0	%100
61	GSI-3A	Z	.007	.007	0	%100
62	GSI-3B	Z	.007	.007	0	%100
63	GSI-3C	Z	.000531	.000531	0	%100
64	GSI-3D	Z	.000531	.000531	0	%100
65	INT-1A	Z	.003	.003	0	%100
66	INT-1B	Z	.005	.005	0	%100
67	INT-2A	Z	.003	.003	0	%100
68	INT-2B	Z	.003	.003	0	%100
69	INT-3A	Z	.005	.005	0	%100
70	INT-3B	Z	.003	.003	0	%100
71	MP-1	Z	.006	.006	0	%100
72	MP-2	Z	.006	.006	0	%100
73	MP-3	Z	.006	.006	0	%100
74	MP-4	Z	.006	.006	0	%100
75	MP-5	Z	.006	.006	0	%100
76	MP-6	Z	.006	.006	0	%100
77	MP-7	Z	.006	.006	0	%100
78	MP-8	Z	.006	.006	0	%100
79	MP-9	Z	.006	.006	0	%100
80	SA-1	Z	.013	.013	0	%100
81	SA-2	Z	0	0	0	%100
82	SA-3	Z	.015	.015	0	%100
83	SF1-TH	Z	.004	.004	0	%100
84	SF2-TH	Z	.008	.008	0	%100
85	SR-1	Z	.003	.003	0	%100
86	SR-2	Z	.003	.003	0	%100
87	SR-3	Z	.006	.006	0	%100
88	SRCP-1	Z	.004	.004	0	%100
89	SRCP-2	Z	.007	.007	0	%100
90	SRCP-3	Z	.004	.004	0	%100



Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
 Job Number : TEP No. 25631.696298  
 Model Name : CCI BU No 876317

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**Member Distributed Loads (BLC 14 : 270 Wind - No Ice)**

Member Label	Direction	Start Magnitude[k/ft. ...]	End Magnitude[k/ft.F. ...]	Start Location[ft.%]	End Location[ft.%]	
1	CP-1A	Z	.013	.013	0	%100
2	CP-1B	Z	.013	.013	0	%100
3	CP-2A	Z	.013	.013	0	%100
4	CP-2B	Z	.013	.013	0	%100
5	CP-3A	Z	0	0	0	%100
6	CP-3B	Z	0	0	0	%100
7	FFTH	Z	0	0	0	%100
8	GSI-1A	Z	.013	.013	0	%100
9	GSI-1B	Z	.013	.013	0	%100
10	GSI-1C	Z	.001	.001	0	%100
11	GSI-1D	Z	.001	.001	0	%100
12	GSI-2A	Z	.013	.013	0	%100
13	GSI-2B	Z	.013	.013	0	%100
14	GSI-2C	Z	.001	.001	0	%100
15	GSI-2D	Z	.001	.001	0	%100
16	GSI-3A	Z	0	0	0	%100
17	GSI-3B	Z	0	0	0	%100
18	GSI-3C	Z	0	0	0	%100
19	GSI-3D	Z	0	0	0	%100
20	INT-1A	Z	0	0	0	%100
21	INT-1B	Z	.005	.005	0	%100
22	INT-2A	Z	.005	.005	0	%100
23	INT-2B	Z	0	0	0	%100
24	INT-3A	Z	.005	.005	0	%100
25	INT-3B	Z	.005	.005	0	%100
26	MP-1	Z	.007	.007	0	%100
27	MP-2	Z	.007	.007	0	%100
28	MP-3	Z	.007	.007	0	%100
29	MP-4	Z	.007	.007	0	%100
30	MP-5	Z	.007	.007	0	%100
31	MP-6	Z	.007	.007	0	%100
32	MP-7	Z	.007	.007	0	%100
33	MP-8	Z	.007	.007	0	%100
34	MP-9	Z	.007	.007	0	%100
35	SA-1	Z	.009	.009	0	%100
36	SA-2	Z	.009	.009	0	%100
37	SA-3	Z	.02	.02	0	%100
38	SF1-TH	Z	.008	.008	0	%100
39	SF2-TH	Z	.008	.008	0	%100
40	SR-1	Z	0	0	0	%100
41	SR-2	Z	.006	.006	0	%100
42	SR-3	Z	.006	.006	0	%100
43	SRCP-1	Z	.007	.007	0	%100
44	SRCP-2	Z	.007	.007	0	%100
45	SRCP-3	Z	0	0	0	%100

**Member Distributed Loads (BLC 15 : 300 Wind - No Ice)**

Member Label	Direction	Start Magnitude[k/ft. ...]	End Magnitude[k/ft.F. ...]	Start Location[ft.%]	End Location[ft.%]	
1	CP-1A	X	-0.007	-0.007	0	%100
2	CP-1B	X	-0.007	-0.007	0	%100
3	CP-2A	X	-0.004	-0.004	0	%100
4	CP-2B	X	-0.004	-0.004	0	%100
5	CP-3A	X	-0.004	-0.004	0	%100
6	CP-3B	X	-0.004	-0.004	0	%100
7	FFTH	X	-0.002	-0.002	0	%100
8	GSI-1A	X	-0.007	-0.007	0	%100



Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
 Job Number : TEP No. 25631.696298  
 Model Name : CCI BU No 876317

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**Member Distributed Loads (BLC 15 : 300 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft. ...]	End Magnitude[k/ft.F. ...]	Start Location[ft.%]	End Location[ft.%]	
9	GSI-1B	X	-0.007	-0.007	0	%100
10	GSI-1C	X	-0.00613	-0.00613	0	%100
11	GSI-1D	X	-0.00613	-0.00613	0	%100
12	GSI-2A	X	-0.004	-0.004	0	%100
13	GSI-2B	X	-0.004	-0.004	0	%100
14	GSI-2C	X	-0.00306	-0.00306	0	%100
15	GSI-2D	X	-0.00306	-0.00306	0	%100
16	GSI-3A	X	-0.004	-0.004	0	%100
17	GSI-3B	X	-0.004	-0.004	0	%100
18	GSI-3C	X	-0.00306	-0.00306	0	%100
19	GSI-3D	X	-0.00306	-0.00306	0	%100
20	INT-1A	X	-0.002	-0.002	0	%100
21	INT-1B	X	-0.001	-0.001	0	%100
22	INT-2A	X	-0.003	-0.003	0	%100
23	INT-2B	X	-0.002	-0.002	0	%100
24	INT-3A	X	-0.001	-0.001	0	%100
25	INT-3B	X	-0.003	-0.003	0	%100
26	MP-1	X	-0.003	-0.003	0	%100
27	MP-2	X	-0.003	-0.003	0	%100
28	MP-3	X	-0.003	-0.003	0	%100
29	MP-4	X	-0.003	-0.003	0	%100
30	MP-5	X	-0.003	-0.003	0	%100
31	MP-6	X	-0.003	-0.003	0	%100
32	MP-7	X	-0.003	-0.003	0	%100
33	MP-8	X	-0.003	-0.003	0	%100
34	MP-9	X	-0.003	-0.003	0	%100
35	SA-1	X	0	0	0	%100
36	SA-2	X	-0.008	-0.008	0	%100
37	SA-3	X	-0.006	-0.006	0	%100
38	SF1-TH	X	-0.004	-0.004	0	%100
39	SF2-TH	X	-0.002	-0.002	0	%100
40	SR-1	X	-0.002	-0.002	0	%100
41	SR-2	X	-0.003	-0.003	0	%100
42	SR-3	X	-0.002	-0.002	0	%100
43	SRCP-1	X	-0.004	-0.004	0	%100
44	SRCP-2	X	-0.002	-0.002	0	%100
45	SRCP-3	X	-0.002	-0.002	0	%100
46	CP-1A	Z	.013	.013	0	%100
47	CP-1B	Z	.013	.013	0	%100
48	CP-2A	Z	.006	.006	0	%100
49	CP-2B	Z	.006	.006	0	%100
50	CP-3A	Z	.006	.006	0	%100
51	CP-3B	Z	.006	.006	0	%100
52	FFTH	Z	.004	.004	0	%100
53	GSI-1A	Z	.013	.013	0	%100
54	GSI-1B	Z	.013	.013	0	%100
55	GSI-1C	Z	.001	.001	0	%100
56	GSI-1D	Z	.001	.001	0	%100
57	GSI-2A	Z	.007	.007	0	%100
58	GSI-2B	Z	.007	.007	0	%100
59	GSI-2C	Z	.000531	.000531	0	%100
60	GSI-2D	Z	.000531	.000531	0	%100
61	GSI-3A	Z	.007	.007	0	%100
62	GSI-3B	Z	.007	.007	0	%100
63	GSI-3C	Z	.000531	.000531	0	%100
64	GSI-3D	Z	.000531	.000531	0	%100
65	INT-1A	Z	.003	.003	0	%100



Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
 Job Number : TEP No. 25631.696298  
 Model Name : CCI BU No 876317

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**Member Distributed Loads (BLC 15 : 300 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft.]	End Magnitude[k/ft.]	Start Location[ft.%]	End Location[ft.%]	
66	INT-1B	Z	.003	.003	0	%100
67	INT-2A	Z	.005	.005	0	%100
68	INT-2B	Z	.003	.003	0	%100
69	INT-3A	Z	.003	.003	0	%100
70	INT-3B	Z	.005	.005	0	%100
71	MP-1	Z	.006	.006	0	%100
72	MP-2	Z	.006	.006	0	%100
73	MP-3	Z	.006	.006	0	%100
74	MP-4	Z	.006	.006	0	%100
75	MP-5	Z	.006	.006	0	%100
76	MP-6	Z	.006	.006	0	%100
77	MP-7	Z	.006	.006	0	%100
78	MP-8	Z	.006	.006	0	%100
79	MP-9	Z	.006	.006	0	%100
80	SA-1	Z	0	0	0	%100
81	SA-2	Z	.013	.013	0	%100
82	SA-3	Z	.015	.015	0	%100
83	SF1-TH	Z	.008	.008	0	%100
84	SF2-TH	Z	.004	.004	0	%100
85	SR-1	Z	.003	.003	0	%100
86	SR-2	Z	.006	.006	0	%100
87	SR-3	Z	.003	.003	0	%100
88	SRCP-1	Z	.007	.007	0	%100
89	SRCP-2	Z	.004	.004	0	%100
90	SRCP-3	Z	.004	.004	0	%100

**Member Distributed Loads (BLC 16 : 315 Wind - No Ice)**

Member Label	Direction	Start Magnitude[k/ft.]	End Magnitude[k/ft.]	Start Location[ft.%]	End Location[ft.%]	
1	CP-1A	X	-.01	-.01	0	%100
2	CP-1B	X	-.01	-.01	0	%100
3	CP-2A	X	-.003	-.003	0	%100
4	CP-2B	X	-.003	-.003	0	%100
5	CP-3A	X	-.007	-.007	0	%100
6	CP-3B	X	-.007	-.007	0	%100
7	FFTH	X	-.005	-.005	0	%100
8	GSI-1A	X	-.01	-.01	0	%100
9	GSI-1B	X	-.01	-.01	0	%100
10	GSI-1C	X	-.000837	-.000837	0	%100
11	GSI-1D	X	-.000837	-.000837	0	%100
12	GSI-2A	X	-.003	-.003	0	%100
13	GSI-2B	X	-.003	-.003	0	%100
14	GSI-2C	X	-.000224	-.000224	0	%100
15	GSI-2D	X	-.000224	-.000224	0	%100
16	GSI-3A	X	-.008	-.008	0	%100
17	GSI-3B	X	-.008	-.008	0	%100
18	GSI-3C	X	-.000613	-.000613	0	%100
19	GSI-3D	X	-.000613	-.000613	0	%100
20	INT-1A	X	-.003	-.003	0	%100
21	INT-1B	X	-.000963	-.000963	0	%100
22	INT-2A	X	-.004	-.004	0	%100
23	INT-2B	X	-.003	-.003	0	%100
24	INT-3A	X	-.000959	-.000959	0	%100
25	INT-3B	X	-.004	-.004	0	%100
26	MP-1	X	-.005	-.005	0	%100
27	MP-2	X	-.005	-.005	0	%100
28	MP-3	X	-.005	-.005	0	%100



Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
 Job Number : TEP No. 25631.696298  
 Model Name : CCI BU No 876317

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**Member Distributed Loads (BLC 16 : 315 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft.]	End Magnitude[k/ft.]	Start Location[ft.%]	End Location[ft.%]	
29	MP-4	X	-.005	-.005	0	%100
30	MP-5	X	-.005	-.005	0	%100
31	MP-6	X	-.005	-.005	0	%100
32	MP-7	X	-.005	-.005	0	%100
33	MP-8	X	-.005	-.005	0	%100
34	MP-9	X	-.005	-.005	0	%100
35	SA-1	X	-.004	-.004	0	%100
36	SA-2	X	-.013	-.013	0	%100
37	SA-3	X	-.007	-.007	0	%100
38	SF1-TH	X	-.006	-.006	0	%100
39	SF2-TH	X	-.002	-.002	0	%100
40	SR-1	X	-.003	-.003	0	%100
41	SR-2	X	-.005	-.005	0	%100
42	SR-3	X	-.001	-.001	0	%100
43	SRCP-1	X	-.005	-.005	0	%100
44	SRCP-2	X	-.001	-.001	0	%100
45	SRCP-3	X	-.004	-.004	0	%100
46	CP-1A	Z	.01	.01	0	%100
47	CP-1B	Z	.01	.01	0	%100
48	CP-2A	Z	.003	.003	0	%100
49	CP-2B	Z	.003	.003	0	%100
50	CP-3A	Z	.007	.007	0	%100
51	CP-3B	Z	.007	.007	0	%100
52	FFTH	Z	.005	.005	0	%100
53	GSI-1A	Z	.01	.01	0	%100
54	GSI-1B	Z	.01	.01	0	%100
55	GSI-1C	Z	.000837	.000837	0	%100
56	GSI-1D	Z	.000837	.000837	0	%100
57	GSI-2A	Z	.003	.003	0	%100
58	GSI-2B	Z	.003	.003	0	%100
59	GSI-2C	Z	.000224	.000224	0	%100
60	GSI-2D	Z	.000224	.000224	0	%100
61	GSI-3A	Z	.008	.008	0	%100
62	GSI-3B	Z	.008	.008	0	%100
63	GSI-3C	Z	.000613	.000613	0	%100
64	GSI-3D	Z	.000613	.000613	0	%100
65	INT-1A	Z	.003	.003	0	%100
66	INT-1B	Z	.001	.001	0	%100
67	INT-2A	Z	.004	.004	0	%100
68	INT-2B	Z	.003	.003	0	%100
69	INT-3A	Z	.001	.001	0	%100
70	INT-3B	Z	.004	.004	0	%100
71	MP-1	Z	.005	.005	0	%100
72	MP-2	Z	.005	.005	0	%100
73	MP-3	Z	.005	.005	0	%100
74	MP-4	Z	.005	.005	0	%100
75	MP-5	Z	.005	.005	0	%100
76	MP-6	Z	.005	.005	0	%100
77	MP-7	Z	.005	.005	0	%100
78	MP-8	Z	.005	.005	0	%100
79	MP-9	Z	.005	.005	0	%100
80	SA-1	Z	.003	.003	0	%100
81	SA-2	Z	.012	.012	0	%100
82	SA-3	Z	.01	.01	0	%100
83	SF1-TH	Z	.007	.007	0	%100
84	SF2-TH	Z	.002	.002	0	%100
85	SR-1	Z	.003	.003	0	%100





Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
 Job Number : TEP No. 25631.696298  
 Model Name : CCI BU No 876317

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**Member Distributed Loads (BLC 16 : 315 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft.]	End Magnitude[k/ft.]	Start Location[ft.%]	End Location[ft.%]	
86	SR-2	Z	.005	.005	0	%100
87	SR-3	Z	.001	.001	0	%100
88	SRCP-1	Z	.006	.006	0	%100
89	SRCP-2	Z	.002	.002	0	%100
90	SRCP-3	Z	.004	.004	0	%100

**Member Distributed Loads (BLC 17 : 330 Wind - No Ice)**

Member Label	Direction	Start Magnitude[k/ft.]	End Magnitude[k/ft.]	Start Location[ft.%]	End Location[ft.%]	
1	CP-1A	X	-.011	-.011	0	%100
2	CP-1B	X	-.011	-.011	0	%100
3	CP-2A	X	0	0	0	%100
4	CP-2B	X	0	0	0	%100
5	CP-3A	X	-.011	-.011	0	%100
6	CP-3B	X	-.011	-.011	0	%100
7	FFTH	X	-.007	-.007	0	%100
8	GSI-1A	X	-.011	-.011	0	%100
9	GSI-1B	X	-.011	-.011	0	%100
10	GSI-1C	X	-.000919	-.000919	0	%100
11	GSI-1D	X	-.000919	-.000919	0	%100
12	GSI-2A	X	0	0	0	%100
13	GSI-2B	X	0	0	0	%100
14	GSI-2C	X	0	0	0	%100
15	GSI-2D	X	0	0	0	%100
16	GSI-3A	X	-.012	-.012	0	%100
17	GSI-3B	X	-.012	-.012	0	%100
18	GSI-3C	X	-.000919	-.000919	0	%100
19	GSI-3D	X	-.000919	-.000919	0	%100
20	INT-1A	X	-.005	-.005	0	%100
21	INT-1B	X	0	0	0	%100
22	INT-2A	X	-.004	-.004	0	%100
23	INT-2B	X	-.005	-.005	0	%100
24	INT-3A	X	-.004	-.004	0	%100
25	INT-3B	X	-.004	-.004	0	%100
26	MP-1	X	-.006	-.006	0	%100
27	MP-2	X	-.006	-.006	0	%100
28	MP-3	X	-.006	-.006	0	%100
29	MP-4	X	-.006	-.006	0	%100
30	MP-5	X	-.006	-.006	0	%100
31	MP-6	X	-.006	-.006	0	%100
32	MP-7	X	-.006	-.006	0	%100
33	MP-8	X	-.006	-.006	0	%100
34	MP-9	X	-.006	-.006	0	%100
35	SA-1	X	-.008	-.008	0	%100
36	SA-2	X	-.017	-.017	0	%100
37	SA-3	X	-.006	-.006	0	%100
38	SF1-TH	X	-.007	-.007	0	%100
39	SF2-TH	X	0	0	0	%100
40	SR-1	X	-.005	-.005	0	%100
41	SR-2	X	-.005	-.005	0	%100
42	SR-3	X	0	0	0	%100
43	SRCP-1	X	-.006	-.006	0	%100
44	SRCP-2	X	0	0	0	%100
45	SRCP-3	X	-.006	-.006	0	%100
46	CP-1A	Z	.006	.006	0	%100
47	CP-1B	Z	.006	.006	0	%100
48	CP-2A	Z	0	0	0	%100



Company : Tower Engineering Professionals, Inc.  
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 Model Name : CCI BU No 876317

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**Member Distributed Loads (BLC 17 : 330 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft.]	End Magnitude[k/ft.]	Start Location[ft.%]	End Location[ft.%]	
49	CP-2B	Z	0	0	0	%100
50	CP-3A	Z	.006	.006	0	%100
51	CP-3B	Z	.006	.006	0	%100
52	FFTH	Z	.004	.004	0	%100
53	GSI-1A	Z	.007	.007	0	%100
54	GSI-1B	Z	.007	.007	0	%100
55	GSI-1C	Z	.000531	.000531	0	%100
56	GSI-1D	Z	.000531	.000531	0	%100
57	GSI-2A	Z	0	0	0	%100
58	GSI-2B	Z	0	0	0	%100
59	GSI-2C	Z	0	0	0	%100
60	GSI-2D	Z	0	0	0	%100
61	GSI-3A	Z	.007	.007	0	%100
62	GSI-3B	Z	.007	.007	0	%100
63	GSI-3C	Z	.000531	.000531	0	%100
64	GSI-3D	Z	.000531	.000531	0	%100
65	INT-1A	Z	.003	.003	0	%100
66	INT-1B	Z	0	0	0	%100
67	INT-2A	Z	.003	.003	0	%100
68	INT-2B	Z	.003	.003	0	%100
69	INT-3A	Z	4e-6	4e-6	0	%100
70	INT-3B	Z	.003	.003	0	%100
71	MP-1	Z	.003	.003	0	%100
72	MP-2	Z	.003	.003	0	%100
73	MP-3	Z	.003	.003	0	%100
74	MP-4	Z	.003	.003	0	%100
75	MP-5	Z	.003	.003	0	%100
76	MP-6	Z	.003	.003	0	%100
77	MP-7	Z	.003	.003	0	%100
78	MP-8	Z	.003	.003	0	%100
79	MP-9	Z	.003	.003	0	%100
80	SA-1	Z	.004	.004	0	%100
81	SA-2	Z	.009	.009	0	%100
82	SA-3	Z	.005	.005	0	%100
83	SF1-TH	Z	.004	.004	0	%100
84	SF2-TH	Z	0	0	0	%100
85	SR-1	Z	.003	.003	0	%100
86	SR-2	Z	.003	.003	0	%100
87	SR-3	Z	0	0	0	%100
88	SRCP-1	Z	.004	.004	0	%100
89	SRCP-2	Z	0	0	0	%100
90	SRCP-3	Z	.004	.004	0	%100

**Member Distributed Loads (BLC 18 : Ice Weight)**

Member Label	Direction	Start Magnitude[k/ft.]	End Magnitude[k/ft.]	Start Location[ft.%]	End Location[ft.%]	
1	CP-1A	Y	-.013	-.013	0	%100
2	CP-1B	Y	-.013	-.013	0	%100
3	CP-2A	Y	-.013	-.013	0	%100
4	CP-2B	Y	-.013	-.013	0	%100
5	CP-3A	Y	-.013	-.013	0	%100
6	CP-3B	Y	-.013	-.013	0	%100
7	FFTH	Y	-.006	-.006	0	%100
8	GSI-1A	Y	-.009	-.009	0	%100
9	GSI-1B	Y	-.009	-.009	0	%100
10	GSI-1C	Y	-.000463	-.000463	0	%100
11	GSI-1D	Y	-.000479	-.000479	0	%100



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**Member Distributed Loads (BLC 18 : Ice Weight) (Continued)**

Member Label	Direction	Start Magnitude[k/ft.]	End Magnitude[k/ft.]	Start Location(ft.%)	End Location(ft.%)	
12	GSI-2A	Y	-0.009	-0.009	0	%100
13	GSI-2B	Y	-0.009	-0.009	0	%100
14	GSI-2C	Y	-0.004463	-0.004463	0	%100
15	GSI-2D	Y	-0.004479	-0.004479	0	%100
16	GSI-3A	Y	-0.009	-0.009	0	%100
17	GSI-3B	Y	-0.009	-0.009	0	%100
18	GSI-3C	Y	-0.004463	-0.004463	0	%100
19	GSI-3D	Y	-0.004479	-0.004479	0	%100
20	INT-1A	Y	-0.002	-0.002	0	%100
21	INT-1B	Y	-0.002	-0.002	0	%100
22	INT-2A	Y	-0.002	-0.002	0	%100
23	INT-2B	Y	-0.002	-0.002	0	%100
24	INT-3A	Y	-0.002	-0.002	0	%100
25	INT-3B	Y	-0.002	-0.002	0	%100
26	MP-1	Y	-0.005	-0.005	0	%100
27	MP-2	Y	-0.005	-0.005	0	%100
28	MP-3	Y	-0.005	-0.005	0	%100
29	MP-4	Y	-0.005	-0.005	0	%100
30	MP-5	Y	-0.005	-0.005	0	%100
31	MP-6	Y	-0.005	-0.005	0	%100
32	MP-7	Y	-0.005	-0.005	0	%100
33	MP-8	Y	-0.005	-0.005	0	%100
34	MP-9	Y	-0.005	-0.005	0	%100
35	SA-1	Y	-0.009	-0.009	0	%100
36	SA-2	Y	-0.009	-0.009	0	%100
37	SA-3	Y	-0.009	-0.009	0	%100
38	SF1-TH	Y	-0.006	-0.006	0	%100
39	SF2-TH	Y	-0.006	-0.006	0	%100
40	SR-1	Y	-0.005	-0.005	0	%100
41	SR-2	Y	-0.005	-0.005	0	%100
42	SR-3	Y	-0.005	-0.005	0	%100
43	SRCP-1	Y	-0.005	-0.005	0	%100
44	SRCP-2	Y	-0.005	-0.005	0	%100
45	SRCP-3	Y	-0.005	-0.005	0	%100

**Member Distributed Loads (BLC 19 : 0 Wind - Ice)**

Member Label	Direction	Start Magnitude[k/ft.]	End Magnitude[k/ft.]	Start Location(ft.%)	End Location(ft.%)	
1	CP-1A	X	-0.006	-0.006	0	%100
2	CP-1B	X	-0.006	-0.006	0	%100
3	CP-2A	X	-0.006	-0.006	0	%100
4	CP-2B	X	-0.006	-0.006	0	%100
5	CP-3A	X	-0.006	-0.006	0	%100
6	CP-3B	X	-0.006	-0.006	0	%100
7	FFTH	X	-0.003	-0.003	0	%100
8	GSI-1A	X	-0.004	-0.004	0	%100
9	GSI-1B	X	-0.004	-0.004	0	%100
10	GSI-1C	X	-0.002	-0.002	0	%100
11	GSI-1D	X	-0.002	-0.002	0	%100
12	GSI-2A	X	-0.004	-0.004	0	%100
13	GSI-2B	X	-0.004	-0.004	0	%100
14	GSI-2C	X	-0.002	-0.002	0	%100
15	GSI-2D	X	-0.002	-0.002	0	%100
16	GSI-3A	X	-0.004	-0.004	0	%100
17	GSI-3B	X	-0.004	-0.004	0	%100
18	GSI-3C	X	-0.002	-0.002	0	%100
19	GSI-3D	X	-0.002	-0.002	0	%100



Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
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 Model Name : CCI BU No 876317

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**Member Distributed Loads (BLC 19 : 0 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft.]	End Magnitude[k/ft.]	Start Location(ft.%)	End Location(ft.%)	
20	INT-1A	X	-0.003	-0.003	0	%100
21	INT-1B	X	-0.002	-0.002	0	%100
22	INT-2A	X	-0.002	-0.002	0	%100
23	INT-2B	X	-0.003	-0.003	0	%100
24	INT-3A	X	-0.002	-0.002	0	%100
25	INT-3B	X	-0.002	-0.002	0	%100
26	MP-1	X	-0.002	-0.002	0	%100
27	MP-2	X	-0.002	-0.002	0	%100
28	MP-3	X	-0.002	-0.002	0	%100
29	MP-4	X	-0.002	-0.002	0	%100
30	MP-5	X	-0.002	-0.002	0	%100
31	MP-6	X	-0.002	-0.002	0	%100
32	MP-7	X	-0.002	-0.002	0	%100
33	MP-8	X	-0.002	-0.002	0	%100
34	MP-9	X	-0.002	-0.002	0	%100
35	SA-1	X	-0.005	-0.005	0	%100
36	SA-2	X	-0.005	-0.005	0	%100
37	SA-3	X	-0.004	-0.004	0	%100
38	SF1-TH	X	-0.002	-0.002	0	%100
39	SF2-TH	X	-0.002	-0.002	0	%100
40	SR-1	X	-0.002	-0.002	0	%100
41	SR-2	X	-0.002	-0.002	0	%100
42	SR-3	X	-0.002	-0.002	0	%100
43	SRCP-1	X	-0.003	-0.003	0	%100
44	SRCP-2	X	-0.003	-0.003	0	%100
45	SRCP-3	X	-0.003	-0.003	0	%100

**Member Distributed Loads (BLC 20 : 30 Wind - Ice)**

Member Label	Direction	Start Magnitude[k/ft.]	End Magnitude[k/ft.]	Start Location(ft.%)	End Location(ft.%)	
1	CP-1A	X	0	0	0	%100
2	CP-1B	X	0	0	0	%100
3	CP-2A	X	-0.004	-0.004	0	%100
4	CP-2B	X	-0.004	-0.004	0	%100
5	CP-3A	X	-0.004	-0.004	0	%100
6	CP-3B	X	-0.004	-0.004	0	%100
7	FFTH	X	-0.002	-0.002	0	%100
8	GSI-1A	X	0	0	0	%100
9	GSI-1B	X	0	0	0	%100
10	GSI-1C	X	0	0	0	%100
11	GSI-1D	X	0	0	0	%100
12	GSI-2A	X	-0.003	-0.003	0	%100
13	GSI-2B	X	-0.003	-0.003	0	%100
14	GSI-2C	X	-0.001	-0.001	0	%100
15	GSI-2D	X	-0.001	-0.001	0	%100
16	GSI-3A	X	-0.003	-0.003	0	%100
17	GSI-3B	X	-0.003	-0.003	0	%100
18	GSI-3C	X	-0.001	-0.001	0	%100
19	GSI-3D	X	-0.001	-0.001	0	%100
20	INT-1A	X	-0.002	-0.002	0	%100
21	INT-1B	X	-0.002	-0.002	0	%100
22	INT-2A	X	0	0	0	%100
23	INT-2B	X	-0.002	-0.002	0	%100
24	INT-3A	X	-0.002	-0.002	0	%100
25	INT-3B	X	-3e-6	-3e-6	0	%100
26	MP-1	X	-0.002	-0.002	0	%100
27	MP-2	X	-0.002	-0.002	0	%100



**Member Distributed Loads (BLC 20 : 30 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft.]	End Magnitude[k/ft.F]	Start Location[ft.%]	End Location[ft.%]
28	MP-3	X	-0.002	-0.002	0
29	MP-4	X	-0.002	-0.002	0
30	MP-5	X	-0.002	-0.002	0
31	MP-6	X	-0.002	-0.002	0
32	MP-7	X	-0.002	-0.002	0
33	MP-8	X	-0.002	-0.002	0
34	MP-9	X	-0.002	-0.002	0
35	SA-1	X	-0.004	-0.004	0
36	SA-2	X	-0.002	-0.002	0
37	SA-3	X	-0.002	-0.002	0
38	SF1-TH	X	0	0	0
39	SF2-TH	X	-0.002	-0.002	0
40	SR-1	X	-0.002	-0.002	0
41	SR-2	X	0	0	0
42	SR-3	X	-0.002	-0.002	0
43	SRCP-1	X	0	0	0
44	SRCP-2	X	-0.002	-0.002	0
45	SRCP-3	X	-0.002	-0.002	0
46	CP-1A	Z	0	0	0
47	CP-1B	Z	0	0	0
48	CP-2A	Z	-0.002	-0.002	0
49	CP-2B	Z	-0.002	-0.002	0
50	CP-3A	Z	-0.002	-0.002	0
51	CP-3B	Z	-0.002	-0.002	0
52	FFTH	Z	-0.001	-0.001	0
53	GSI-1A	Z	0	0	0
54	GSI-1B	Z	0	0	0
55	GSI-1C	Z	0	0	0
56	GSI-2A	Z	0	0	0
57	GSI-2A	Z	-0.002	-0.002	0
58	GSI-2B	Z	-0.002	-0.002	0
59	GSI-2C	Z	-0.00805	-0.00805	0
60	GSI-2D	Z	-0.00758	-0.00758	0
61	GSI-3A	Z	-0.002	-0.002	0
62	GSI-3B	Z	-0.002	-0.002	0
63	GSI-3C	Z	-0.00753	-0.00753	0
64	GSI-3D	Z	-0.007	-0.007	0
65	INT-1A	Z	-0.00398	-0.00398	0
66	INT-1B	Z	-0.001	-0.001	0
67	INT-2A	Z	0	0	0
68	INT-2B	Z	-0.00398	-0.00398	0
69	INT-3A	Z	-0.001	-0.001	0
70	INT-3B	Z	-2e-6	-2e-6	0
71	MP-1	Z	-0.001	-0.001	0
72	MP-2	Z	-0.001	-0.001	0
73	MP-3	Z	-0.001	-0.001	0
74	MP-4	Z	-0.001	-0.001	0
75	MP-5	Z	-0.001	-0.001	0
76	MP-6	Z	-0.001	-0.001	0
77	MP-7	Z	-0.001	-0.001	0
78	MP-8	Z	-0.001	-0.001	0
79	MP-9	Z	-0.001	-0.001	0
80	SA-1	Z	-0.002	-0.002	0
81	SA-2	Z	-0.001	-0.001	0
82	SA-3	Z	-0.001	-0.001	0
83	SF1-TH	Z	0	0	0
84	SF2-TH	Z	-0.001	-0.001	0



**Member Distributed Loads (BLC 20 : 30 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft.]	End Magnitude[k/ft.F]	Start Location[ft.%]	End Location[ft.%]
85	SR-1	Z	-0.00963	-0.00963	0
86	SR-2	Z	0	0	0
87	SR-3	Z	-0.001	-0.001	0
88	SRCP-1	Z	0	0	0
89	SRCP-2	Z	-0.001	-0.001	0
90	SRCP-3	Z	-0.001	-0.001	0

**Member Distributed Loads (BLC 21 : 45 Wind - Ice)**

Member Label	Direction	Start Magnitude[k/ft.]	End Magnitude[k/ft.F]	Start Location[ft.%]	End Location[ft.%]
1	CP-1A	X	-0.001	-0.001	0
2	CP-1B	X	-0.001	-0.001	0
3	CP-2A	X	-0.004	-0.004	0
4	CP-2B	X	-0.004	-0.004	0
5	CP-3A	X	-0.003	-0.003	0
6	CP-3B	X	-0.003	-0.003	0
7	FFTH	X	-0.002	-0.002	0
8	GSI-1A	X	-0.00734	-0.00734	0
9	GSI-1B	X	-0.00734	-0.00734	0
10	GSI-1C	X	-0.00304	-0.00304	0
11	GSI-1D	X	-0.00292	-0.00292	0
12	GSI-2A	X	-0.003	-0.003	0
13	GSI-2B	X	-0.003	-0.003	0
14	GSI-2C	X	-0.001	-0.001	0
15	GSI-2D	X	-0.001	-0.001	0
16	GSI-3A	X	-0.002	-0.002	0
17	GSI-3B	X	-0.002	-0.002	0
18	GSI-3C	X	-0.00966	-0.00966	0
19	GSI-3D	X	-0.00898	-0.00898	0
20	INT-1A	X	-0.001	-0.001	0
21	INT-1B	X	-0.002	-0.002	0
22	INT-2A	X	-0.00409	-0.00409	0
23	INT-2B	X	-0.001	-0.001	0
24	INT-3A	X	-0.002	-0.002	0
25	INT-3B	X	-0.00407	-0.00407	0
26	MP-1	X	-0.001	-0.001	0
27	MP-2	X	-0.001	-0.001	0
28	MP-3	X	-0.001	-0.001	0
29	MP-4	X	-0.001	-0.001	0
30	MP-5	X	-0.001	-0.001	0
31	MP-6	X	-0.001	-0.001	0
32	MP-7	X	-0.001	-0.001	0
33	MP-8	X	-0.001	-0.001	0
34	MP-9	X	-0.001	-0.001	0
35	SA-1	X	-0.003	-0.003	0
36	SA-2	X	-0.00876	-0.00876	0
37	SA-3	X	-0.002	-0.002	0
38	SF1-TH	X	-0.00442	-0.00442	0
39	SF2-TH	X	-0.002	-0.002	0
40	SR-1	X	-0.001	-0.001	0
41	SR-2	X	-0.00383	-0.00383	0
42	SR-3	X	-0.001	-0.001	0
43	SRCP-1	X	-0.00514	-0.00514	0
44	SRCP-2	X	-0.002	-0.002	0
45	SRCP-3	X	-0.001	-0.001	0
46	CP-1A	Z	-0.001	-0.001	0
47	CP-1B	Z	-0.001	-0.001	0



Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
 Job Number : TEP No. 25631.696298  
 Model Name : CCI BU No 876317

May 3, 2022  
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**Member Distributed Loads (BLC 21 : 45 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude(k/ft...)	End Magnitude(k/ft.F...)	Start Location(ft.%)	End Location(ft.%)	
48	CP-2A	Z	-0.004	-0.004	0	%100
49	CP-2B	Z	-0.004	-0.004	0	%100
50	CP-3A	Z	-0.003	-0.003	0	%100
51	CP-3B	Z	-0.003	-0.003	0	%100
52	FFTH	Z	-0.001	-0.001	0	%100
53	GSI-1A	Z	-0.000761	-0.000761	0	%100
54	GSI-1B	Z	-0.000761	-0.000761	0	%100
55	GSI-1C	Z	-0.00034	-0.00034	0	%100
56	GSI-1D	Z	-0.00032	-0.00032	0	%100
57	GSI-2A	Z	-0.003	-0.003	0	%100
58	GSI-2B	Z	-0.003	-0.003	0	%100
59	GSI-2C	Z	-0.001	-0.001	0	%100
60	GSI-2D	Z	-0.001	-0.001	0	%100
61	GSI-3A	Z	-0.002	-0.002	0	%100
62	GSI-3B	Z	-0.002	-0.002	0	%100
63	GSI-3C	Z	-0.000869	-0.000869	0	%100
64	GSI-3D	Z	-0.000809	-0.000809	0	%100
65	INT-1A	Z	-0.001	-0.001	0	%100
66	INT-1B	Z	-0.002	-0.002	0	%100
67	INT-2A	Z	-0.000453	-0.000453	0	%100
68	INT-2B	Z	-0.001	-0.001	0	%100
69	INT-3A	Z	-0.002	-0.002	0	%100
70	INT-3B	Z	-0.00045	-0.00045	0	%100
71	MP-1	Z	-0.002	-0.002	0	%100
72	MP-2	Z	-0.002	-0.002	0	%100
73	MP-3	Z	-0.002	-0.002	0	%100
74	MP-4	Z	-0.002	-0.002	0	%100
75	MP-5	Z	-0.002	-0.002	0	%100
76	MP-6	Z	-0.002	-0.002	0	%100
77	MP-7	Z	-0.002	-0.002	0	%100
78	MP-8	Z	-0.002	-0.002	0	%100
79	MP-9	Z	-0.002	-0.002	0	%100
80	SA-1	Z	-0.003	-0.003	0	%100
81	SA-2	Z	-0.000793	-0.000793	0	%100
82	SA-3	Z	-0.002	-0.002	0	%100
83	SF1-TH	Z	-0.000542	-0.000542	0	%100
84	SF2-TH	Z	-0.002	-0.002	0	%100
85	SR-1	Z	-0.001	-0.001	0	%100
86	SR-2	Z	-0.000452	-0.000452	0	%100
87	SR-3	Z	-0.002	-0.002	0	%100
88	SRCP-1	Z	-0.000539	-0.000539	0	%100
89	SRCP-2	Z	-0.002	-0.002	0	%100
90	SRCP-3	Z	-0.001	-0.001	0	%100

**Member Distributed Loads (BLC 22 : 60 Wind - Ice)**

Member Label	Direction	Start Magnitude(k/ft...)	End Magnitude(k/ft.F...)	Start Location(ft.%)	End Location(ft.%)	
1	CP-1A	X	-0.001	-0.001	0	%100
2	CP-1B	X	-0.001	-0.001	0	%100
3	CP-2A	X	-0.003	-0.003	0	%100
4	CP-2B	X	-0.003	-0.003	0	%100
5	CP-3A	X	-0.001	-0.001	0	%100
6	CP-3B	X	-0.001	-0.001	0	%100
7	FFTH	X	-0.000768	-0.000768	0	%100
8	GSI-1A	X	-0.001	-0.001	0	%100
9	GSI-1B	X	-0.001	-0.001	0	%100
10	GSI-1C	X	-0.000416	-0.000416	0	%100



Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
 Job Number : TEP No. 25631.696298  
 Model Name : CCI BU No 876317

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**Member Distributed Loads (BLC 22 : 60 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude(k/ft...)	End Magnitude(k/ft.F...)	Start Location(ft.%)	End Location(ft.%)	
11	GSI-1D	X	-0.000399	-0.000399	0	%100
12	GSI-2A	X	-0.002	-0.002	0	%100
13	GSI-2B	X	-0.002	-0.002	0	%100
14	GSI-2C	X	-0.000831	-0.000831	0	%100
15	GSI-2D	X	-0.000799	-0.000799	0	%100
16	GSI-3A	X	-0.001	-0.001	0	%100
17	GSI-3B	X	-0.001	-0.001	0	%100
18	GSI-3C	X	-0.000483	-0.000483	0	%100
19	GSI-3D	X	-0.000449	-0.000449	0	%100
20	INT-1A	X	-0.00064	-0.00064	0	%100
21	INT-1B	X	-0.001	-0.001	0	%100
22	INT-2A	X	-0.000558	-0.000558	0	%100
23	INT-2B	X	-0.00064	-0.00064	0	%100
24	INT-3A	X	-0.001	-0.001	0	%100
25	INT-3B	X	-0.000557	-0.000557	0	%100
26	MP-1	X	-0.001	-0.001	0	%100
27	MP-2	X	-0.001	-0.001	0	%100
28	MP-3	X	-0.001	-0.001	0	%100
29	MP-4	X	-0.001	-0.001	0	%100
30	MP-5	X	-0.001	-0.001	0	%100
31	MP-6	X	-0.001	-0.001	0	%100
32	MP-7	X	-0.001	-0.001	0	%100
33	MP-8	X	-0.001	-0.001	0	%100
34	MP-9	X	-0.001	-0.001	0	%100
35	SA-1	X	-0.002	-0.002	0	%100
36	SA-2	X	0	0	0	%100
37	SA-3	X	-0.002	-0.002	0	%100
38	SF1-TH	X	-0.000604	-0.000604	0	%100
39	SF2-TH	X	-0.001	-0.001	0	%100
40	SR-1	X	-0.000618	-0.000618	0	%100
41	SR-2	X	-0.000523	-0.000523	0	%100
42	SR-3	X	-0.001	-0.001	0	%100
43	SRCP-1	X	-0.000703	-0.000703	0	%100
44	SRCP-2	X	-0.001	-0.001	0	%100
45	SRCP-3	X	-0.000749	-0.000749	0	%100
46	CP-1A	Z	-0.002	-0.002	0	%100
47	CP-1B	Z	-0.002	-0.002	0	%100
48	CP-2A	Z	-0.005	-0.005	0	%100
49	CP-2B	Z	-0.005	-0.005	0	%100
50	CP-3A	Z	-0.002	-0.002	0	%100
51	CP-3B	Z	-0.002	-0.002	0	%100
52	FFTH	Z	-0.001	-0.001	0	%100
53	GSI-1A	Z	-0.002	-0.002	0	%100
54	GSI-1B	Z	-0.002	-0.002	0	%100
55	GSI-1C	Z	-0.000805	-0.000805	0	%100
56	GSI-1D	Z	-0.000758	-0.000758	0	%100
57	GSI-2A	Z	-0.004	-0.004	0	%100
58	GSI-2B	Z	-0.004	-0.004	0	%100
59	GSI-2C	Z	-0.002	-0.002	0	%100
60	GSI-2D	Z	-0.002	-0.002	0	%100
61	GSI-3A	Z	-0.002	-0.002	0	%100
62	GSI-3B	Z	-0.002	-0.002	0	%100
63	GSI-3C	Z	-0.000753	-0.000753	0	%100
64	GSI-3D	Z	-0.0007	-0.0007	0	%100
65	INT-1A	Z	-0.000998	-0.000998	0	%100
66	INT-1B	Z	-0.002	-0.002	0	%100
67	INT-2A	Z	-0.001	-0.001	0	%100



Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
 Job Number : TEP No. 25631.696298  
 Model Name : CCI BU No 876317

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**Member Distributed Loads (BLC 22 : 60 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude(k/ft...)	End Magnitude(k/ft.F...)	Start Location(ft.%)	End Location(ft.%)
68	INT-2B	Z	-0.00998	-0.00998	0 %100
69	INT-3A	Z	-0.002	-0.002	0 %100
70	INT-3B	Z	-0.001	-0.001	0 %100
71	MP-1	Z	-0.002	-0.002	0 %100
72	MP-2	Z	-0.002	-0.002	0 %100
73	MP-3	Z	-0.002	-0.002	0 %100
74	MP-4	Z	-0.002	-0.002	0 %100
75	MP-5	Z	-0.002	-0.002	0 %100
76	MP-6	Z	-0.002	-0.002	0 %100
77	MP-7	Z	-0.002	-0.002	0 %100
78	MP-8	Z	-0.002	-0.002	0 %100
79	MP-9	Z	-0.002	-0.002	0 %100
80	SA-1	Z	-0.003	-0.003	0 %100
81	SA-2	Z	0	0	0 %100
82	SA-3	Z	-0.004	-0.004	0 %100
83	SF1-TH	Z	-0.001	-0.001	0 %100
84	SF2-TH	Z	-0.003	-0.003	0 %100
85	SR-1	Z	-0.00963	-0.00963	0 %100
86	SR-2	Z	-0.001	-0.001	0 %100
87	SR-3	Z	-0.002	-0.002	0 %100
88	SRCP-1	Z	-0.001	-0.001	0 %100
89	SRCP-2	Z	-0.003	-0.003	0 %100
90	SRCP-3	Z	-0.001	-0.001	0 %100

**Member Distributed Loads (BLC 23 : 90 Wind - Ice)**

Member Label	Direction	Start Magnitude(k/ft...)	End Magnitude(k/ft.F...)	Start Location(ft.%)	End Location(ft.%)
1	CP-1A	Z	-0.005	-0.005	0 %100
2	CP-1B	Z	-0.005	-0.005	0 %100
3	CP-2A	Z	-0.005	-0.005	0 %100
4	CP-2B	Z	-0.005	-0.005	0 %100
5	CP-3A	Z	0	0	0 %100
6	CP-3B	Z	0	0	0 %100
7	FFTH	Z	0	0	0 %100
8	GSI-1A	Z	-0.004	-0.004	0 %100
9	GSI-1B	Z	-0.004	-0.004	0 %100
10	GSI-1C	Z	-0.002	-0.002	0 %100
11	GSI-1D	Z	-0.002	-0.002	0 %100
12	GSI-2A	Z	-0.004	-0.004	0 %100
13	GSI-2B	Z	-0.004	-0.004	0 %100
14	GSI-2C	Z	-0.002	-0.002	0 %100
15	GSI-2D	Z	-0.002	-0.002	0 %100
16	GSI-3A	Z	0	0	0 %100
17	GSI-3B	Z	0	0	0 %100
18	GSI-3C	Z	0	0	0 %100
19	GSI-3D	Z	0	0	0 %100
20	INT-1A	Z	0	0	0 %100
21	INT-1B	Z	-0.002	-0.002	0 %100
22	INT-2A	Z	-0.002	-0.002	0 %100
23	INT-2B	Z	0	0	0 %100
24	INT-3A	Z	-0.002	-0.002	0 %100
25	INT-3B	Z	-0.002	-0.002	0 %100
26	MP-1	Z	-0.002	-0.002	0 %100
27	MP-2	Z	-0.002	-0.002	0 %100
28	MP-3	Z	-0.002	-0.002	0 %100
29	MP-4	Z	-0.002	-0.002	0 %100
30	MP-5	Z	-0.002	-0.002	0 %100



Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
 Job Number : TEP No. 25631.696298  
 Model Name : CCI BU No 876317

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**Member Distributed Loads (BLC 23 : 90 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude(k/ft...)	End Magnitude(k/ft.F...)	Start Location(ft.%)	End Location(ft.%)
31	MP-6	Z	-0.002	-0.002	0 %100
32	MP-7	Z	-0.002	-0.002	0 %100
33	MP-8	Z	-0.002	-0.002	0 %100
34	MP-9	Z	-0.002	-0.002	0 %100
35	SA-1	Z	-0.002	-0.002	0 %100
36	SA-2	Z	-0.002	-0.002	0 %100
37	SA-3	Z	-0.005	-0.005	0 %100
38	SF1-TH	Z	-0.003	-0.003	0 %100
39	SF2-TH	Z	-0.003	-0.003	0 %100
40	SR-1	Z	0	0	0 %100
41	SR-2	Z	-0.002	-0.002	0 %100
42	SR-3	Z	-0.002	-0.002	0 %100
43	SRCP-1	Z	-0.003	-0.003	0 %100
44	SRCP-2	Z	-0.003	-0.003	0 %100
45	SRCP-3	Z	0	0	0 %100

**Member Distributed Loads (BLC 24 : 120 Wind - Ice)**

Member Label	Direction	Start Magnitude(k/ft...)	End Magnitude(k/ft.F...)	Start Location(ft.%)	End Location(ft.%)
1	CP-1A	X	.003	.003	0 %100
2	CP-1B	X	.003	.003	0 %100
3	CP-2A	X	.001	.001	0 %100
4	CP-2B	X	.001	.001	0 %100
5	CP-3A	X	.001	.001	0 %100
6	CP-3B	X	.001	.001	0 %100
7	FFTH	X	.000768	.000768	0 %100
8	GSI-1A	X	.002	.002	0 %100
9	GSI-1B	X	.002	.002	0 %100
10	GSI-1C	X	.000831	.000831	0 %100
11	GSI-1D	X	.000799	.000799	0 %100
12	GSI-2A	X	.001	.001	0 %100
13	GSI-2B	X	.001	.001	0 %100
14	GSI-2C	X	.000416	.000416	0 %100
15	GSI-2D	X	.000399	.000399	0 %100
16	GSI-3A	X	.001	.001	0 %100
17	GSI-3B	X	.001	.001	0 %100
18	GSI-3C	X	.000483	.000483	0 %100
19	GSI-3D	X	.000449	.000449	0 %100
20	INT-1A	X	.00064	.00064	0 %100
21	INT-1B	X	.000558	.000558	0 %100
22	INT-2A	X	.001	.001	0 %100
23	INT-2B	X	.00064	.00064	0 %100
24	INT-3A	X	.000557	.000557	0 %100
25	INT-3B	X	.001	.001	0 %100
26	MP-1	X	.001	.001	0 %100
27	MP-2	X	.001	.001	0 %100
28	MP-3	X	.001	.001	0 %100
29	MP-4	X	.001	.001	0 %100
30	MP-5	X	.001	.001	0 %100
31	MP-6	X	.001	.001	0 %100
32	MP-7	X	.001	.001	0 %100
33	MP-8	X	.001	.001	0 %100
34	MP-9	X	.001	.001	0 %100
35	SA-1	X	0	0	0 %100
36	SA-2	X	.002	.002	0 %100
37	SA-3	X	.002	.002	0 %100
38	SF1-TH	X	.001	.001	0 %100



Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
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 Model Name : CCI BU No 876317

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**Member Distributed Loads (BLC 24 : 120 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude(k/ft...)	End Magnitude(k/ft.F...)	Start Location(ft.%)	End Location(ft.%)	
39	SF2-TH	X	.000604	.000604	0	%100
40	SR-1	X	.000618	.000618	0	%100
41	SR-2	X	.001	.001	0	%100
42	SR-3	X	.000523	.000523	0	%100
43	SRCP-1	X	.001	.001	0	%100
44	SRCP-2	X	.000703	.000703	0	%100
45	SRCP-3	X	.000749	.000749	0	%100
46	CP-1A	Z	-.005	-.005	0	%100
47	CP-1B	Z	-.005	-.005	0	%100
48	CP-2A	Z	-.002	-.002	0	%100
49	CP-2B	Z	-.002	-.002	0	%100
50	CP-3A	Z	-.002	-.002	0	%100
51	CP-3B	Z	-.002	-.002	0	%100
52	FFTH	Z	-.001	-.001	0	%100
53	GSI-1A	Z	-.004	-.004	0	%100
54	GSI-1B	Z	-.004	-.004	0	%100
55	GSI-1C	Z	-.002	-.002	0	%100
56	GSI-1D	Z	-.002	-.002	0	%100
57	GSI-2A	Z	-.002	-.002	0	%100
58	GSI-2B	Z	-.002	-.002	0	%100
59	GSI-2C	Z	-.000805	-.000805	0	%100
60	GSI-2D	Z	-.000758	-.000758	0	%100
61	GSI-3A	Z	-.002	-.002	0	%100
62	GSI-3B	Z	-.002	-.002	0	%100
63	GSI-3C	Z	-.000753	-.000753	0	%100
64	GSI-3D	Z	-.0007	-.0007	0	%100
65	INT-1A	Z	-.000998	-.000998	0	%100
66	INT-1B	Z	-.001	-.001	0	%100
67	INT-2A	Z	-.002	-.002	0	%100
68	INT-2B	Z	-.000998	-.000998	0	%100
69	INT-3A	Z	-.001	-.001	0	%100
70	INT-3B	Z	-.002	-.002	0	%100
71	MP-1	Z	-.002	-.002	0	%100
72	MP-2	Z	-.002	-.002	0	%100
73	MP-3	Z	-.002	-.002	0	%100
74	MP-4	Z	-.002	-.002	0	%100
75	MP-5	Z	-.002	-.002	0	%100
76	MP-6	Z	-.002	-.002	0	%100
77	MP-7	Z	-.002	-.002	0	%100
78	MP-8	Z	-.002	-.002	0	%100
79	MP-9	Z	-.002	-.002	0	%100
80	SA-1	Z	0	0	0	%100
81	SA-2	Z	-.003	-.003	0	%100
82	SA-3	Z	-.004	-.004	0	%100
83	SF1-TH	Z	-.003	-.003	0	%100
84	SF2-TH	Z	-.001	-.001	0	%100
85	SR-1	Z	-.000963	-.000963	0	%100
86	SR-2	Z	-.002	-.002	0	%100
87	SR-3	Z	-.001	-.001	0	%100
88	SRCP-1	Z	-.003	-.003	0	%100
89	SRCP-2	Z	-.001	-.001	0	%100
90	SRCP-3	Z	-.001	-.001	0	%100

**Member Distributed Loads (BLC 25 : 135 Wind - Ice)**

Member Label	Direction	Start Magnitude(k/ft...)	End Magnitude(k/ft.F...)	Start Location(ft.%)	End Location(ft.%)	
1	CP-1A	X	.004	.004	0	%100



Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
 Job Number : TEP No. 25631.696298  
 Model Name : CCI BU No 876317

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**Member Distributed Loads (BLC 25 : 135 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude(k/ft...)	End Magnitude(k/ft.F...)	Start Location(ft.%)	End Location(ft.%)	
2	CP-1B	X	.004	.004	0	%100
3	CP-2A	X	.001	.001	0	%100
4	CP-2B	X	.001	.001	0	%100
5	CP-3A	X	.003	.003	0	%100
6	CP-3B	X	.003	.003	0	%100
7	FFTH	X	.002	.002	0	%100
8	GSI-1A	X	.003	.003	0	%100
9	GSI-1B	X	.003	.003	0	%100
10	GSI-1C	X	.001	.001	0	%100
11	GSI-1D	X	.001	.001	0	%100
12	GSI-2A	X	.000734	.000734	0	%100
13	GSI-2B	X	.000734	.000734	0	%100
14	GSI-2C	X	.000304	.000304	0	%100
15	GSI-2D	X	.000292	.000292	0	%100
16	GSI-3A	X	.002	.002	0	%100
17	GSI-3B	X	.002	.002	0	%100
18	GSI-3C	X	.000966	.000966	0	%100
19	GSI-3D	X	.000898	.000898	0	%100
20	INT-1A	X	.001	.001	0	%100
21	INT-1B	X	.000409	.000409	0	%100
22	INT-2A	X	.002	.002	0	%100
23	INT-2B	X	.001	.001	0	%100
24	INT-3A	X	.000407	.000407	0	%100
25	INT-3B	X	.002	.002	0	%100
26	MP-1	X	.001	.001	0	%100
27	MP-2	X	.001	.001	0	%100
28	MP-3	X	.001	.001	0	%100
29	MP-4	X	.001	.001	0	%100
30	MP-5	X	.001	.001	0	%100
31	MP-6	X	.001	.001	0	%100
32	MP-7	X	.001	.001	0	%100
33	MP-8	X	.001	.001	0	%100
34	MP-9	X	.001	.001	0	%100
35	SA-1	X	.000876	.000876	0	%100
36	SA-2	X	.003	.003	0	%100
37	SA-3	X	.002	.002	0	%100
38	SF1-TH	X	.002	.002	0	%100
39	SF2-TH	X	.000442	.000442	0	%100
40	SR-1	X	.001	.001	0	%100
41	SR-2	X	.001	.001	0	%100
42	SR-3	X	.000383	.000383	0	%100
43	SRCP-1	X	.002	.002	0	%100
44	SRCP-2	X	.000514	.000514	0	%100
45	SRCP-3	X	.001	.001	0	%100
46	CP-1A	Z	-.004	-.004	0	%100
47	CP-1B	Z	-.004	-.004	0	%100
48	CP-2A	Z	-.001	-.001	0	%100
49	CP-2B	Z	-.001	-.001	0	%100
50	CP-3A	Z	-.003	-.003	0	%100
51	CP-3B	Z	-.003	-.003	0	%100
52	FFTH	Z	-.001	-.001	0	%100
53	GSI-1A	Z	-.003	-.003	0	%100
54	GSI-1B	Z	-.003	-.003	0	%100
55	GSI-1C	Z	-.001	-.001	0	%100
56	GSI-1D	Z	-.001	-.001	0	%100
57	GSI-2A	Z	-.000761	-.000761	0	%100
58	GSI-2B	Z	-.000761	-.000761	0	%100



Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
 Job Number : TEP No. 25631.696298  
 Model Name : CCI BU No 876317

May 3, 2022  
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**Member Distributed Loads (BLC 25 : 135 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude(k/ft.)	End Magnitude(k/ft.F.)	Start Location(ft.%)	End Location(ft.%)	
59	GSI-2C	Z	-0.0034	-0.0034	0	%100
60	GSI-2D	Z	-0.0032	-0.0032	0	%100
61	GSI-3A	Z	-0.002	-0.002	0	%100
62	GSI-3B	Z	-0.002	-0.002	0	%100
63	GSI-3C	Z	-0.000869	-0.000869	0	%100
64	GSI-3D	Z	-0.000809	-0.000809	0	%100
65	INT-1A	Z	-0.001	-0.001	0	%100
66	INT-1B	Z	-0.000453	-0.000453	0	%100
67	INT-2A	Z	-0.002	-0.002	0	%100
68	INT-2B	Z	-0.001	-0.001	0	%100
69	INT-3A	Z	-0.00045	-0.00045	0	%100
70	INT-3B	Z	-0.002	-0.002	0	%100
71	MP-1	Z	-0.002	-0.002	0	%100
72	MP-2	Z	-0.002	-0.002	0	%100
73	MP-3	Z	-0.002	-0.002	0	%100
74	MP-4	Z	-0.002	-0.002	0	%100
75	MP-5	Z	-0.002	-0.002	0	%100
76	MP-6	Z	-0.002	-0.002	0	%100
77	MP-7	Z	-0.002	-0.002	0	%100
78	MP-8	Z	-0.002	-0.002	0	%100
79	MP-9	Z	-0.002	-0.002	0	%100
80	SA-1	Z	-0.000793	-0.000793	0	%100
81	SA-2	Z	-0.003	-0.003	0	%100
82	SA-3	Z	-0.002	-0.002	0	%100
83	SF1-TH	Z	-0.002	-0.002	0	%100
84	SF2-TH	Z	-0.000542	-0.000542	0	%100
85	SB-1	Z	-0.001	-0.001	0	%100
86	SB-2	Z	-0.002	-0.002	0	%100
87	SB-3	Z	-0.000452	-0.000452	0	%100
88	SRCP-1	Z	-0.002	-0.002	0	%100
89	SRCP-2	Z	-0.000539	-0.000539	0	%100
90	SRCP-3	Z	-0.001	-0.001	0	%100

**Member Distributed Loads (BLC 26 : 150 Wind - Ice)**

Member Label	Direction	Start Magnitude(k/ft.)	End Magnitude(k/ft.F.)	Start Location(ft.%)	End Location(ft.%)	
1	CP-1A	X	.004	.004	0	%100
2	CP-1B	X	.004	.004	0	%100
3	CP-2A	X	0	0	0	%100
4	CP-2B	X	0	0	0	%100
5	CP-3A	X	.004	.004	0	%100
6	CP-3B	X	.004	.004	0	%100
7	FFTH	X	.002	.002	0	%100
8	GSI-1A	X	.003	.003	0	%100
9	GSI-1B	X	.003	.003	0	%100
10	GSI-1C	X	.001	.001	0	%100
11	GSI-1D	X	.001	.001	0	%100
12	GSI-2A	X	0	0	0	%100
13	GSI-2B	X	0	0	0	%100
14	GSI-2C	X	0	0	0	%100
15	GSI-2D	X	0	0	0	%100
16	GSI-3A	X	.003	.003	0	%100
17	GSI-3B	X	.003	.003	0	%100
18	GSI-3C	X	.001	.001	0	%100
19	GSI-3D	X	.001	.001	0	%100
20	INT-1A	X	.002	.002	0	%100
21	INT-1B	X	0	0	0	%100



Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
 Job Number : TEP No. 25631.696298  
 Model Name : CCI BU No 876317

May 3, 2022  
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**Member Distributed Loads (BLC 26 : 150 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude(k/ft.)	End Magnitude(k/ft.F.)	Start Location(ft.%)	End Location(ft.%)	
22	INT-2A	X	.002	.002	0	%100
23	INT-2B	X	.002	.002	0	%100
24	INT-3A	X	3e-6	3e-6	0	%100
25	INT-3B	X	.002	.002	0	%100
26	MP-1	X	.002	.002	0	%100
27	MP-2	X	.002	.002	0	%100
28	MP-3	X	.002	.002	0	%100
29	MP-4	X	.002	.002	0	%100
30	MP-5	X	.002	.002	0	%100
31	MP-6	X	.002	.002	0	%100
32	MP-7	X	.002	.002	0	%100
33	MP-8	X	.002	.002	0	%100
34	MP-9	X	.002	.002	0	%100
35	SA-1	X	.002	.002	0	%100
36	SA-2	X	.004	.004	0	%100
37	SA-3	X	.002	.002	0	%100
38	SF1-TH	X	.002	.002	0	%100
39	SF2-TH	X	0	0	0	%100
40	SB-1	X	.002	.002	0	%100
41	SB-2	X	.002	.002	0	%100
42	SB-3	X	0	0	0	%100
43	SRCP-1	X	.002	.002	0	%100
44	SRCP-2	X	0	0	0	%100
45	SRCP-3	X	.002	.002	0	%100
46	CP-1A	Z	-0.002	-0.002	0	%100
47	CP-1B	Z	-0.002	-0.002	0	%100
48	CP-2A	Z	0	0	0	%100
49	CP-2B	Z	0	0	0	%100
50	CP-3A	Z	-0.002	-0.002	0	%100
51	CP-3B	Z	-0.002	-0.002	0	%100
52	FFTH	Z	-0.001	-0.001	0	%100
53	GSI-1A	Z	-0.002	-0.002	0	%100
54	GSI-1B	Z	-0.002	-0.002	0	%100
55	GSI-1C	Z	-0.000805	-0.000805	0	%100
56	GSI-1D	Z	-0.000758	-0.000758	0	%100
57	GSI-2A	Z	0	0	0	%100
58	GSI-2B	Z	0	0	0	%100
59	GSI-2C	Z	0	0	0	%100
60	GSI-2D	Z	0	0	0	%100
61	GSI-3A	Z	-0.002	-0.002	0	%100
62	GSI-3B	Z	-0.002	-0.002	0	%100
63	GSI-3C	Z	-0.000753	-0.000753	0	%100
64	GSI-3D	Z	-0.0007	-0.0007	0	%100
65	INT-1A	Z	-0.000998	-0.000998	0	%100
66	INT-1B	Z	0	0	0	%100
67	INT-2A	Z	-0.001	-0.001	0	%100
68	INT-2B	Z	-0.000998	-0.000998	0	%100
69	INT-3A	Z	-2e-6	-2e-6	0	%100
70	INT-3B	Z	-0.001	-0.001	0	%100
71	MP-1	Z	-0.001	-0.001	0	%100
72	MP-2	Z	-0.001	-0.001	0	%100
73	MP-3	Z	-0.001	-0.001	0	%100
74	MP-4	Z	-0.001	-0.001	0	%100
75	MP-5	Z	-0.001	-0.001	0	%100
76	MP-6	Z	-0.001	-0.001	0	%100
77	MP-7	Z	-0.001	-0.001	0	%100
78	MP-8	Z	-0.001	-0.001	0	%100







Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
 Job Number : TEP No. 25631.696298  
 Model Name : CCI BU No 876317

May 3, 2022  
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**Member Distributed Loads (BLC 28 : 210 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft.]	End Magnitude[k/ft.]	Start Location[ft.%]	End Location[ft.%]
50	CP-3A	Z	.002	.002	0
51	CP-3B	Z	.002	.002	0
52	FFTH	Z	.001	.001	0
53	GSI-1A	Z	0	0	0
54	GSI-1B	Z	0	0	0
55	GSI-1C	Z	0	0	0
56	GSI-1D	Z	0	0	0
57	GSI-2A	Z	.002	.002	0
58	GSI-2B	Z	.002	.002	0
59	GSI-2C	Z	.000805	.000805	0
60	GSI-2D	Z	.000758	.000758	0
61	GSI-3A	Z	.002	.002	0
62	GSI-3B	Z	.002	.002	0
63	GSI-3C	Z	.000753	.000753	0
64	GSI-3D	Z	.0007	.0007	0
65	INT-1A	Z	.000998	.000998	0
66	INT-1B	Z	.001	.001	0
67	INT-2A	Z	0	0	0
68	INT-2B	Z	.000998	.000998	0
69	INT-3A	Z	.001	.001	0
70	INT-3B	Z	2e-6	2e-6	0
71	MP-1	Z	.001	.001	0
72	MP-2	Z	.001	.001	0
73	MP-3	Z	.001	.001	0
74	MP-4	Z	.001	.001	0
75	MP-5	Z	.001	.001	0
76	MP-6	Z	.001	.001	0
77	MP-7	Z	.001	.001	0
78	MP-8	Z	.001	.001	0
79	MP-9	Z	.001	.001	0
80	SA-1	Z	.002	.002	0
81	SA-2	Z	.001	.001	0
82	SA-3	Z	.001	.001	0
83	SF1-TH	Z	0	0	0
84	SF2-TH	Z	.001	.001	0
85	SR-1	Z	.000963	.000963	0
86	SR-2	Z	0	0	0
87	SR-3	Z	.001	.001	0
88	SRCP-1	Z	0	0	0
89	SRCP-2	Z	.001	.001	0
90	SRCP-3	Z	.001	.001	0

**Member Distributed Loads (BLC 29 : 225 Wind - Ice)**

Member Label	Direction	Start Magnitude[k/ft.]	End Magnitude[k/ft.]	Start Location[ft.%]	End Location[ft.%]
1	CP-1A	X	.001	.001	0
2	CP-1B	X	.001	.001	0
3	CP-2A	X	.004	.004	0
4	CP-2B	X	.004	.004	0
5	CP-3A	X	.003	.003	0
6	CP-3B	X	.003	.003	0
7	FFTH	X	.002	.002	0
8	GSI-1A	X	.000734	.000734	0
9	GSI-1B	X	.000734	.000734	0
10	GSI-1C	X	.000304	.000304	0
11	GSI-1D	X	.000292	.000292	0
12	GSI-2A	X	.003	.003	0



Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
 Job Number : TEP No. 25631.696298  
 Model Name : CCI BU No 876317

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**Member Distributed Loads (BLC 29 : 225 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft.]	End Magnitude[k/ft.]	Start Location[ft.%]	End Location[ft.%]
13	GSI-2B	X	.003	.003	0
14	GSI-2C	X	.001	.001	0
15	GSI-2D	X	.001	.001	0
16	GSI-3A	X	.002	.002	0
17	GSI-3B	X	.002	.002	0
18	GSI-3C	X	.000966	.000966	0
19	GSI-3D	X	.000898	.000898	0
20	INT-1A	X	.001	.001	0
21	INT-1B	X	.002	.002	0
22	INT-2A	X	.000409	.000409	0
23	INT-2B	X	.001	.001	0
24	INT-3A	X	.002	.002	0
25	INT-3B	X	.000407	.000407	0
26	MP-1	X	.001	.001	0
27	MP-2	X	.001	.001	0
28	MP-3	X	.001	.001	0
29	MP-4	X	.001	.001	0
30	MP-5	X	.001	.001	0
31	MP-6	X	.001	.001	0
32	MP-7	X	.001	.001	0
33	MP-8	X	.001	.001	0
34	MP-9	X	.001	.001	0
35	SA-1	X	.003	.003	0
36	SA-2	X	.000876	.000876	0
37	SA-3	X	.002	.002	0
38	SF1-TH	X	.000442	.000442	0
39	SF2-TH	X	.002	.002	0
40	SR-1	X	.001	.001	0
41	SR-2	X	.000383	.000383	0
42	SR-3	X	.001	.001	0
43	SRCP-1	X	.000514	.000514	0
44	SRCP-2	X	.002	.002	0
45	SRCP-3	X	.001	.001	0
46	CP-1A	Z	.001	.001	0
47	CP-1B	Z	.001	.001	0
48	CP-2A	Z	.004	.004	0
49	CP-2B	Z	.004	.004	0
50	CP-3A	Z	.003	.003	0
51	CP-3B	Z	.003	.003	0
52	FFTH	Z	.001	.001	0
53	GSI-1A	Z	.000761	.000761	0
54	GSI-1B	Z	.000761	.000761	0
55	GSI-1C	Z	.00034	.00034	0
56	GSI-1D	Z	.00032	.00032	0
57	GSI-2A	Z	.003	.003	0
58	GSI-2B	Z	.003	.003	0
59	GSI-2C	Z	.001	.001	0
60	GSI-2D	Z	.001	.001	0
61	GSI-3A	Z	.002	.002	0
62	GSI-3B	Z	.002	.002	0
63	GSI-3C	Z	.000869	.000869	0
64	GSI-3D	Z	.000809	.000809	0
65	INT-1A	Z	.001	.001	0
66	INT-1B	Z	.002	.002	0
67	INT-2A	Z	.000453	.000453	0
68	INT-2B	Z	.001	.001	0
69	INT-3A	Z	.002	.002	0



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**Member Distributed Loads (BLC 29 : 225 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft...]	End Magnitude[k/ft.F...]	Start Location[ft.%]	End Location[ft.%]	
70	INT-3B	Z	.00045	.00045	0	%100
71	MP-1	Z	.002	.002	0	%100
72	MP-2	Z	.002	.002	0	%100
73	MP-3	Z	.002	.002	0	%100
74	MP-4	Z	.002	.002	0	%100
75	MP-5	Z	.002	.002	0	%100
76	MP-6	Z	.002	.002	0	%100
77	MP-7	Z	.002	.002	0	%100
78	MP-8	Z	.002	.002	0	%100
79	MP-9	Z	.002	.002	0	%100
80	SA-1	Z	.003	.003	0	%100
81	SA-2	Z	.000793	.000793	0	%100
82	SA-3	Z	.002	.002	0	%100
83	SF1-TH	Z	.000542	.000542	0	%100
84	SF2-TH	Z	.002	.002	0	%100
85	SR-1	Z	.001	.001	0	%100
86	SR-2	Z	.000452	.000452	0	%100
87	SR-3	Z	.002	.002	0	%100
88	SRCP-1	Z	.000539	.000539	0	%100
89	SRCP-2	Z	.002	.002	0	%100
90	SRCP-3	Z	.001	.001	0	%100

**Member Distributed Loads (BLC 30 : 240 Wind - Ice)**

Member Label	Direction	Start Magnitude[k/ft...]	End Magnitude[k/ft.F...]	Start Location[ft.%]	End Location[ft.%]	
1	CP-1A	X	.001	.001	0	%100
2	CP-1B	X	.001	.001	0	%100
3	CP-2A	X	.003	.003	0	%100
4	CP-2B	X	.003	.003	0	%100
5	CP-3A	X	.001	.001	0	%100
6	CP-3B	X	.001	.001	0	%100
7	FFTH	X	.000768	.000768	0	%100
8	GSI-1A	X	.001	.001	0	%100
9	GSI-1B	X	.001	.001	0	%100
10	GSI-1C	X	.000416	.000416	0	%100
11	GSI-1D	X	.000399	.000399	0	%100
12	GSI-2A	X	.002	.002	0	%100
13	GSI-2B	X	.002	.002	0	%100
14	GSI-2C	X	.000831	.000831	0	%100
15	GSI-2D	X	.000799	.000799	0	%100
16	GSI-3A	X	.001	.001	0	%100
17	GSI-3B	X	.001	.001	0	%100
18	GSI-3C	X	.000483	.000483	0	%100
19	GSI-3D	X	.000449	.000449	0	%100
20	INT-1A	X	.00064	.00064	0	%100
21	INT-1B	X	.001	.001	0	%100
22	INT-2A	X	.000558	.000558	0	%100
23	INT-2B	X	.00064	.00064	0	%100
24	INT-3A	X	.001	.001	0	%100
25	INT-3B	X	.000557	.000557	0	%100
26	MP-1	X	.001	.001	0	%100
27	MP-2	X	.001	.001	0	%100
28	MP-3	X	.001	.001	0	%100
29	MP-4	X	.001	.001	0	%100
30	MP-5	X	.001	.001	0	%100
31	MP-6	X	.001	.001	0	%100
32	MP-7	X	.001	.001	0	%100



Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
 Job Number : TEP No. 25631.696298  
 Model Name : CCI BU No 876317

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**Member Distributed Loads (BLC 30 : 240 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft...]	End Magnitude[k/ft.F...]	Start Location[ft.%]	End Location[ft.%]	
33	MP-8	X	.001	.001	0	%100
34	MP-9	X	.001	.001	0	%100
35	SA-1	X	.002	.002	0	%100
36	SA-2	X	0	0	0	%100
37	SA-3	X	.002	.002	0	%100
38	SF1-TH	X	.000604	.000604	0	%100
39	SF2-TH	X	.001	.001	0	%100
40	SR-1	X	.000618	.000618	0	%100
41	SR-2	X	.000523	.000523	0	%100
42	SR-3	X	.001	.001	0	%100
43	SRCP-1	X	.000703	.000703	0	%100
44	SRCP-2	X	.001	.001	0	%100
45	SRCP-3	X	.000749	.000749	0	%100
46	CP-1A	Z	.002	.002	0	%100
47	CP-1B	Z	.002	.002	0	%100
48	CP-2A	Z	.005	.005	0	%100
49	CP-2B	Z	.005	.005	0	%100
50	CP-3A	Z	.002	.002	0	%100
51	CP-3B	Z	.002	.002	0	%100
52	FFTH	Z	.001	.001	0	%100
53	GSI-1A	Z	.002	.002	0	%100
54	GSI-1B	Z	.002	.002	0	%100
55	GSI-1C	Z	.000805	.000805	0	%100
56	GSI-1D	Z	.000758	.000758	0	%100
57	GSI-2A	Z	.004	.004	0	%100
58	GSI-2B	Z	.004	.004	0	%100
59	GSI-2C	Z	.002	.002	0	%100
60	GSI-2D	Z	.002	.002	0	%100
61	GSI-3A	Z	.002	.002	0	%100
62	GSI-3B	Z	.002	.002	0	%100
63	GSI-3C	Z	.000753	.000753	0	%100
64	GSI-3D	Z	.0007	.0007	0	%100
65	INT-1A	Z	.000998	.000998	0	%100
66	INT-1B	Z	.002	.002	0	%100
67	INT-2A	Z	.001	.001	0	%100
68	INT-2B	Z	.000998	.000998	0	%100
69	INT-3A	Z	.002	.002	0	%100
70	INT-3B	Z	.001	.001	0	%100
71	MP-1	Z	.002	.002	0	%100
72	MP-2	Z	.002	.002	0	%100
73	MP-3	Z	.002	.002	0	%100
74	MP-4	Z	.002	.002	0	%100
75	MP-5	Z	.002	.002	0	%100
76	MP-6	Z	.002	.002	0	%100
77	MP-7	Z	.002	.002	0	%100
78	MP-8	Z	.002	.002	0	%100
79	MP-9	Z	.002	.002	0	%100
80	SA-1	Z	.003	.003	0	%100
81	SA-2	Z	0	0	0	%100
82	SA-3	Z	.004	.004	0	%100
83	SF1-TH	Z	.001	.001	0	%100
84	SF2-TH	Z	.003	.003	0	%100
85	SR-1	Z	.000963	.000963	0	%100
86	SR-2	Z	.001	.001	0	%100
87	SR-3	Z	.002	.002	0	%100
88	SRCP-1	Z	.001	.001	0	%100
89	SRCP-2	Z	.003	.003	0	%100



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 Designer : ARH  
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**Member Distributed Loads (BLC 30 : 240 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft.F]	Start Location[ft.%]	End Location[ft.%]
90	SRCP-3	Z	.001	.001	0 %100

**Member Distributed Loads (BLC 31 : 270 Wind - Ice)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft.F]	Start Location[ft.%]	End Location[ft.%]
1	CP-1A	Z	.005	.005	0 %100
2	CP-1B	Z	.005	.005	0 %100
3	CP-2A	Z	.005	.005	0 %100
4	CP-2B	Z	.005	.005	0 %100
5	CP-3A	Z	0	0	0 %100
6	CP-3B	Z	0	0	0 %100
7	FFTH	Z	0	0	0 %100
8	GSI-1A	Z	.004	.004	0 %100
9	GSI-1B	Z	.004	.004	0 %100
10	GSI-1C	Z	.002	.002	0 %100
11	GSI-1D	Z	.002	.002	0 %100
12	GSI-2A	Z	.004	.004	0 %100
13	GSI-2B	Z	.004	.004	0 %100
14	GSI-2C	Z	.002	.002	0 %100
15	GSI-2D	Z	.002	.002	0 %100
16	GSI-3A	Z	0	0	0 %100
17	GSI-3B	Z	0	0	0 %100
18	GSI-3C	Z	0	0	0 %100
19	GSI-3D	Z	0	0	0 %100
20	INT-1A	Z	0	0	0 %100
21	INT-1B	Z	.002	.002	0 %100
22	INT-2A	Z	.002	.002	0 %100
23	INT-2B	Z	0	0	0 %100
24	INT-3A	Z	.002	.002	0 %100
25	INT-3B	Z	.002	.002	0 %100
26	MP-1	Z	.002	.002	0 %100
27	MP-2	Z	.002	.002	0 %100
28	MP-3	Z	.002	.002	0 %100
29	MP-4	Z	.002	.002	0 %100
30	MP-5	Z	.002	.002	0 %100
31	MP-6	Z	.002	.002	0 %100
32	MP-7	Z	.002	.002	0 %100
33	MP-8	Z	.002	.002	0 %100
34	MP-9	Z	.002	.002	0 %100
35	SA-1	Z	.002	.002	0 %100
36	SA-2	Z	.002	.002	0 %100
37	SA-3	Z	.005	.005	0 %100
38	SF1-TH	Z	.003	.003	0 %100
39	SF2-TH	Z	.003	.003	0 %100
40	SB-1	Z	0	0	0 %100
41	SB-2	Z	.002	.002	0 %100
42	SB-3	Z	.002	.002	0 %100
43	SRCP-1	Z	.003	.003	0 %100
44	SRCP-2	Z	.003	.003	0 %100
45	SRCP-3	Z	0	0	0 %100

**Member Distributed Loads (BLC 32 : 300 Wind - Ice)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft.F]	Start Location[ft.%]	End Location[ft.%]
1	CP-1A	X	-.003	-.003	0 %100
2	CP-1B	X	-.003	-.003	0 %100
3	CP-2A	X	-.001	-.001	0 %100
4	CP-2B	X	-.001	-.001	0 %100



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**Member Distributed Loads (BLC 32 : 300 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft.F]	Start Location[ft.%]	End Location[ft.%]
5	CP-3A	X	-.001	-.001	0 %100
6	CP-3B	X	-.001	-.001	0 %100
7	FFTH	X	-.000768	-.000768	0 %100
8	GSI-1A	X	-.002	-.002	0 %100
9	GSI-1B	X	-.002	-.002	0 %100
10	GSI-1C	X	-.000831	-.000831	0 %100
11	GSI-1D	X	-.000799	-.000799	0 %100
12	GSI-2A	X	-.001	-.001	0 %100
13	GSI-2B	X	-.001	-.001	0 %100
14	GSI-2C	X	-.000416	-.000416	0 %100
15	GSI-2D	X	-.000399	-.000399	0 %100
16	GSI-3A	X	-.001	-.001	0 %100
17	GSI-3B	X	-.001	-.001	0 %100
18	GSI-3C	X	-.000483	-.000483	0 %100
19	GSI-3D	X	-.000449	-.000449	0 %100
20	INT-1A	X	-.00064	-.00064	0 %100
21	INT-1B	X	-.000558	-.000558	0 %100
22	INT-2A	X	-.001	-.001	0 %100
23	INT-2B	X	-.00064	-.00064	0 %100
24	INT-3A	X	-.000557	-.000557	0 %100
25	INT-3B	X	-.001	-.001	0 %100
26	MP-1	X	-.001	-.001	0 %100
27	MP-2	X	-.001	-.001	0 %100
28	MP-3	X	-.001	-.001	0 %100
29	MP-4	X	-.001	-.001	0 %100
30	MP-5	X	-.001	-.001	0 %100
31	MP-6	X	-.001	-.001	0 %100
32	MP-7	X	-.001	-.001	0 %100
33	MP-8	X	-.001	-.001	0 %100
34	MP-9	X	-.001	-.001	0 %100
35	SA-1	X	0	0	0 %100
36	SA-2	X	-.002	-.002	0 %100
37	SA-3	X	-.002	-.002	0 %100
38	SF1-TH	X	-.001	-.001	0 %100
39	SF2-TH	X	-.000604	-.000604	0 %100
40	SR-1	X	-.000618	-.000618	0 %100
41	SR-2	X	-.001	-.001	0 %100
42	SR-3	X	-.000523	-.000523	0 %100
43	SRCP-1	X	-.001	-.001	0 %100
44	SRCP-2	X	-.000703	-.000703	0 %100
45	SRCP-3	X	-.000749	-.000749	0 %100
46	CP-1A	Z	.005	.005	0 %100
47	CP-1B	Z	.005	.005	0 %100
48	CP-2A	Z	.002	.002	0 %100
49	CP-2B	Z	.002	.002	0 %100
50	CP-3A	Z	.002	.002	0 %100
51	CP-3B	Z	.002	.002	0 %100
52	FFTH	Z	.001	.001	0 %100
53	GSI-1A	Z	.004	.004	0 %100
54	GSI-1B	Z	.004	.004	0 %100
55	GSI-1C	Z	.002	.002	0 %100
56	GSI-1D	Z	.002	.002	0 %100
57	GSI-2A	Z	.002	.002	0 %100
58	GSI-2B	Z	.002	.002	0 %100
59	GSI-2C	Z	.000805	.000805	0 %100
60	GSI-2D	Z	.000758	.000758	0 %100
61	GSI-3A	Z	.002	.002	0 %100



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**Member Distributed Loads (BLC 32 : 300 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft.]	End Magnitude[k/ft.F.]	Start Location[ft.%]	End Location[ft.%]
62	GSI-3B	Z	.002	.002	0
63	GSI-3C	Z	.000753	.000753	0
64	GSI-3D	Z	.0007	.0007	0
65	INT-1A	Z	.000998	.000998	0
66	INT-1B	Z	.001	.001	0
67	INT-2A	Z	.002	.002	0
68	INT-2B	Z	.000998	.000998	0
69	INT-3A	Z	.001	.001	0
70	INT-3B	Z	.002	.002	0
71	MP-1	Z	.002	.002	0
72	MP-2	Z	.002	.002	0
73	MP-3	Z	.002	.002	0
74	MP-4	Z	.002	.002	0
75	MP-5	Z	.002	.002	0
76	MP-6	Z	.002	.002	0
77	MP-7	Z	.002	.002	0
78	MP-8	Z	.002	.002	0
79	MP-9	Z	.002	.002	0
80	SA-1	Z	0	0	0
81	SA-2	Z	.003	.003	0
82	SA-3	Z	.004	.004	0
83	SF1-TH	Z	.003	.003	0
84	SF2-TH	Z	.001	.001	0
85	SR-1	Z	.000963	.000963	0
86	SR-2	Z	.002	.002	0
87	SR-3	Z	.001	.001	0
88	SRCP-1	Z	.003	.003	0
89	SRCP-2	Z	.001	.001	0
90	SRCP-3	Z	.001	.001	0

**Member Distributed Loads (BLC 33 : 315 Wind - Ice)**

Member Label	Direction	Start Magnitude[k/ft.]	End Magnitude[k/ft.F.]	Start Location[ft.%]	End Location[ft.%]
1	CP-1A	X	-.004	-.004	0
2	CP-1B	X	-.004	-.004	0
3	CP-2A	X	-.001	-.001	0
4	CP-2B	X	-.001	-.001	0
5	CP-3A	X	-.003	-.003	0
6	CP-3B	X	-.003	-.003	0
7	FFTH	X	-.002	-.002	0
8	GSI-1A	Z	-.003	-.003	0
9	GSI-1B	X	-.003	-.003	0
10	GSI-1C	X	-.001	-.001	0
11	GSI-1D	X	-.001	-.001	0
12	GSI-2A	X	-.000734	-.000734	0
13	GSI-2B	X	-.000734	-.000734	0
14	GSI-2C	X	-.000304	-.000304	0
15	GSI-2D	X	-.000292	-.000292	0
16	GSI-3A	X	-.002	-.002	0
17	GSI-3B	X	-.002	-.002	0
18	GSI-3C	X	-.000966	-.000966	0
19	GSI-3D	X	-.000898	-.000898	0
20	INT-1A	X	-.001	-.001	0
21	INT-1B	X	-.000409	-.000409	0
22	INT-2A	X	-.002	-.002	0
23	INT-2B	X	-.001	-.001	0
24	INT-3A	X	-.000407	-.000407	0



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**Member Distributed Loads (BLC 33 : 315 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft.]	End Magnitude[k/ft.F.]	Start Location[ft.%]	End Location[ft.%]
25	INT-3B	X	-.002	-.002	0
26	MP-1	X	-.001	-.001	0
27	MP-2	X	-.001	-.001	0
28	MP-3	X	-.001	-.001	0
29	MP-4	X	-.001	-.001	0
30	MP-5	X	-.001	-.001	0
31	MP-6	X	-.001	-.001	0
32	MP-7	X	-.001	-.001	0
33	MP-8	X	-.001	-.001	0
34	MP-9	X	-.001	-.001	0
35	SA-1	X	-.000876	-.000876	0
36	SA-2	X	-.003	-.003	0
37	SA-3	X	-.002	-.002	0
38	SF1-TH	X	-.002	-.002	0
39	SF2-TH	X	-.000442	-.000442	0
40	SR-1	X	-.001	-.001	0
41	SR-2	X	-.001	-.001	0
42	SR-3	X	-.000383	-.000383	0
43	SRCP-1	X	-.002	-.002	0
44	SRCP-2	X	-.000514	-.000514	0
45	SRCP-3	X	-.001	-.001	0
46	CP-1A	Z	.004	.004	0
47	CP-1B	Z	.004	.004	0
48	CP-2A	Z	.001	.001	0
49	CP-2B	Z	.001	.001	0
50	CP-3A	Z	.003	.003	0
51	CP-3B	Z	.003	.003	0
52	FFTH	Z	.001	.001	0
53	GSI-1A	Z	.003	.003	0
54	GSI-1B	Z	.003	.003	0
55	GSI-1C	Z	.001	.001	0
56	GSI-1D	Z	.001	.001	0
57	GSI-2A	Z	.000761	.000761	0
58	GSI-2B	Z	.000761	.000761	0
59	GSI-2C	Z	.00034	.00034	0
60	GSI-2D	Z	.00032	.00032	0
61	GSI-3A	Z	.002	.002	0
62	GSI-3B	Z	.002	.002	0
63	GSI-3C	Z	.000869	.000869	0
64	GSI-3D	Z	.000809	.000809	0
65	INT-1A	Z	.001	.001	0
66	INT-1B	Z	.000453	.000453	0
67	INT-2A	Z	.002	.002	0
68	INT-2B	Z	.001	.001	0
69	INT-3A	Z	.00045	.00045	0
70	INT-3B	Z	.002	.002	0
71	MP-1	Z	.002	.002	0
72	MP-2	Z	.002	.002	0
73	MP-3	Z	.002	.002	0
74	MP-4	Z	.002	.002	0
75	MP-5	Z	.002	.002	0
76	MP-6	Z	.002	.002	0
77	MP-7	Z	.002	.002	0
78	MP-8	Z	.002	.002	0
79	MP-9	Z	.002	.002	0
80	SA-1	Z	.000793	.000793	0
81	SA-2	Z	.003	.003	0



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**Member Distributed Loads (BLC 33 : 315 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft.]	End Magnitude[k/ft.]	Start Location[ft.%]	End Location[ft.%]	
82	SA-3	Z	.002	.002	0	%100
83	SF1-TH	Z	.002	.002	0	%100
84	SF2-TH	Z	.000542	.000542	0	%100
85	SR-1	Z	.001	.001	0	%100
86	SR-2	Z	.002	.002	0	%100
87	SR-3	Z	.000452	.000452	0	%100
88	SRCP-1	Z	.002	.002	0	%100
89	SRCP-2	Z	.000539	.000539	0	%100
90	SRCP-3	Z	.001	.001	0	%100

**Member Distributed Loads (BLC 34 : 330 Wind - Ice)**

Member Label	Direction	Start Magnitude[k/ft.]	End Magnitude[k/ft.]	Start Location[ft.%]	End Location[ft.%]	
1	CP-1A	X	-.004	-.004	0	%100
2	CP-1B	X	-.004	-.004	0	%100
3	CP-2A	X	0	0	0	%100
4	CP-2B	X	0	0	0	%100
5	CP-3A	X	-.004	-.004	0	%100
6	CP-3B	X	-.004	-.004	0	%100
7	FFTH	X	-.002	-.002	0	%100
8	GSI-1A	X	-.003	-.003	0	%100
9	GSI-1B	X	-.003	-.003	0	%100
10	GSI-1C	X	-.001	-.001	0	%100
11	GSI-1D	X	-.001	-.001	0	%100
12	GSI-2A	X	0	0	0	%100
13	GSI-2B	X	0	0	0	%100
14	GSI-2C	X	0	0	0	%100
15	GSI-2D	X	0	0	0	%100
16	GSI-3A	X	-.003	-.003	0	%100
17	GSI-3B	X	-.003	-.003	0	%100
18	GSI-3C	X	-.001	-.001	0	%100
19	GSI-3D	X	-.001	-.001	0	%100
20	INT-1A	X	-.002	-.002	0	%100
21	INT-1B	X	0	0	0	%100
22	INT-2A	X	-.002	-.002	0	%100
23	INT-2B	X	-.002	-.002	0	%100
24	INT-3A	X	-3e-6	-3e-6	0	%100
25	INT-3B	X	-.002	-.002	0	%100
26	MP-1	X	-.002	-.002	0	%100
27	MP-2	X	-.002	-.002	0	%100
28	MP-3	X	-.002	-.002	0	%100
29	MP-4	X	-.002	-.002	0	%100
30	MP-5	X	-.002	-.002	0	%100
31	MP-6	X	-.002	-.002	0	%100
32	MP-7	X	-.002	-.002	0	%100
33	MP-8	X	-.002	-.002	0	%100
34	MP-9	X	-.002	-.002	0	%100
35	SA-1	X	-.002	-.002	0	%100
36	SA-2	X	-.004	-.004	0	%100
37	SA-3	X	-.002	-.002	0	%100
38	SF1-TH	X	-.002	-.002	0	%100
39	SF2-TH	X	0	0	0	%100
40	SB-1	X	-.002	-.002	0	%100
41	SR-2	X	-.002	-.002	0	%100
42	SR-3	X	0	0	0	%100
43	SRCP-1	X	-.002	-.002	0	%100
44	SRCP-2	X	0	0	0	%100



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**Member Distributed Loads (BLC 34 : 330 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft.]	End Magnitude[k/ft.]	Start Location[ft.%]	End Location[ft.%]	
45	SRCP-3	X	-.002	-.002	0	%100
46	CP-1A	Z	.002	.002	0	%100
47	CP-1B	Z	.002	.002	0	%100
48	CP-2A	Z	0	0	0	%100
49	CP-2B	Z	0	0	0	%100
50	CP-3A	Z	.002	.002	0	%100
51	CP-3B	Z	.002	.002	0	%100
52	FFTH	Z	.001	.001	0	%100
53	GSI-1A	Z	.002	.002	0	%100
54	GSI-1B	Z	.002	.002	0	%100
55	GSI-1C	Z	.000805	.000805	0	%100
56	GSI-1D	Z	.000758	.000758	0	%100
57	GSI-2A	Z	0	0	0	%100
58	GSI-2B	Z	0	0	0	%100
59	GSI-2C	Z	0	0	0	%100
60	GSI-2D	Z	0	0	0	%100
61	GSI-3A	Z	.002	.002	0	%100
62	GSI-3B	Z	.002	.002	0	%100
63	GSI-3C	Z	.000753	.000753	0	%100
64	GSI-3D	Z	.0007	.0007	0	%100
65	INT-1A	Z	.000998	.000998	0	%100
66	INT-1B	Z	0	0	0	%100
67	INT-2A	Z	.001	.001	0	%100
68	INT-2B	Z	.000998	.000998	0	%100
69	INT-3A	Z	2e-6	2e-6	0	%100
70	INT-3B	Z	.001	.001	0	%100
71	MP-1	Z	.001	.001	0	%100
72	MP-2	Z	.001	.001	0	%100
73	MP-3	Z	.001	.001	0	%100
74	MP-4	Z	.001	.001	0	%100
75	MP-5	Z	.001	.001	0	%100
76	MP-6	Z	.001	.001	0	%100
77	MP-7	Z	.001	.001	0	%100
78	MP-8	Z	.001	.001	0	%100
79	MP-9	Z	.001	.001	0	%100
80	SA-1	Z	.001	.001	0	%100
81	SA-2	Z	.002	.002	0	%100
82	SA-3	Z	.001	.001	0	%100
83	SF1-TH	Z	.001	.001	0	%100
84	SF2-TH	Z	0	0	0	%100
85	SR-1	Z	.000963	.000963	0	%100
86	SR-2	Z	.001	.001	0	%100
87	SR-3	Z	0	0	0	%100
88	SRCP-1	Z	.001	.001	0	%100
89	SRCP-2	Z	0	0	0	%100
90	SRCP-3	Z	.001	.001	0	%100

**Member Distributed Loads (BLC 39 : BLC 1 Transient Area Loads)**

Member Label	Direction	Start Magnitude[k/ft.]	End Magnitude[k/ft.]	Start Location[ft.%]	End Location[ft.%]	
1	CP-2A	Y	-.003	-.003	0	.394
2	CP-2B	Y	-.003	-.003	.0009707	.395
3	GSI-2A	Y	-.007	-.007	.484	1.453
4	GSI-2B	Y	-.007	-.007	.681	1.641
5	GSI-2C	Y	-.006	-.006	0	.718
6	GSI-2C	Y	-.006	-.006	.718	1.436
7	GSI-2C	Y	-.006	-.006	1.436	2.155



Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
 Job Number : TEP No. 25631.696298  
 Model Name : CCI BU No 876317

May 3, 2022  
 1:00 PM  
 Checked By: DC

**Member Distributed Loads (BLC 39 : BLC 1 Transient Area Loads) (Continued)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft]	Start Location[ft.%]	End Location[ft.%]
8	GSI-2C	-0.06	-0.05	2.155	2.873
9	GSI-2D	-0.05	-0.05	0	9.19
10	GSI-2D	-0.05	-0.06	9.19	1.838
11	INT-2A	-0.008154	-0.02	0	1.148
12	INT-2A	-0.02	-0.04	1.148	2.297
13	INT-2A	-0.04	-0.07	2.297	3.445
14	INT-2B	-0.07	-0.05	0	1.148
15	INT-2B	-0.05	-0.03	1.148	2.297
16	INT-2B	-0.03	-0.00382	2.297	3.445
17	SA-2	-0.09	-0.07	2.346	3.225
18	SA-2	-0.07	-0.08	3.225	4.105
19	SA-2	-0.08	-0.07	4.105	4.985
20	SA-2	-0.07	-0.01	4.985	5.864
21	CP-1A	-0.03	-0.03	0	3.94
22	CP-1B	-0.03	-0.03	0.009707	3.95
23	GSI-1A	-0.07	-0.07	4.84	1.453
24	GSI-1B	-0.07	-0.07	6.81	1.641
25	GSI-1C	-0.05	-0.06	0	7.18
26	GSI-1C	-0.06	-0.06	7.18	1.436
27	GSI-1C	-0.06	-0.06	1.436	2.155
28	GSI-1C	-0.06	-0.06	2.155	2.873
29	GSI-1D	-0.06	-0.05	0	9.19
30	GSI-1D	-0.05	-0.05	9.19	1.838
31	INT-1A	-0.003927	-0.03	0	1.148
32	INT-1A	-0.03	-0.05	1.148	2.297
33	INT-1A	-0.05	-0.06	2.297	3.445
34	INT-1B	-0.07	-0.04	0	1.148
35	INT-1B	-0.04	-0.02	1.148	2.297
36	INT-1B	-0.02	-0.00805	2.297	3.445
37	SA-1	-0.09	-0.07	2.346	3.225
38	SA-1	-0.07	-0.08	3.225	4.105
39	SA-1	-0.08	-0.07	4.105	4.985
40	SA-1	-0.07	-0.01	4.985	5.864
41	CP-3A	-0.03	-0.03	0	3.9
42	CP-3B	-0.03	-0.03	0.009764	3.91
43	GSI-3A	-0.07	-0.07	4.74	1.432
44	GSI-3B	-0.07	-0.07	6.85	1.643
45	GSI-3C	-0.05	-0.05	0	7.17
46	GSI-3C	-0.06	-0.06	7.17	1.434
47	GSI-3C	-0.06	-0.06	1.434	2.151
48	GSI-3C	-0.06	-0.05	2.151	2.869
49	GSI-3D	-0.11	-0.05	0.8	4.98
50	GSI-3D	-0.05	-0.02	4.98	9.15
51	GSI-3D	-0.02	-0.05	9.15	1.333
52	GSI-3D	-0.05	-0.11	1.333	1.751
53	INT-3A	-0.007574	-0.02	0	1.148
54	INT-3A	-0.02	-0.04	1.148	2.297
55	INT-3A	-0.04	-0.07	2.297	3.445
56	INT-3B	-0.07	-0.04	0	1.148
57	INT-3B	-0.04	-0.02	1.148	2.297
58	INT-3B	-0.02	-0.007568	2.297	3.445
59	SA-3	-0.05	-0.07	2.346	3.519
60	SA-3	-0.07	-0.08	3.519	4.691
61	SA-3	-0.08	-0.06	4.691	5.864

**Member Distributed Loads (BLC 40 : BLC 18 Transient Area Loads)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft]	Start Location[ft.%]	End Location[ft.%]
1	CP-1A	-0.01	-0.01	0	3.94
2	CP-1B	-0.01	-0.01	0.009707	3.95
3	GSI-1A	-0.03	-0.03	4.84	1.453
4	GSI-1B	-0.03	-0.03	6.81	1.641
5	GSI-1C	-0.02	-0.03	0	7.18
6	GSI-1C	-0.03	-0.03	7.18	1.436
7	GSI-1C	-0.03	-0.02	1.436	2.155
8	GSI-1C	-0.02	-0.02	2.155	2.873
9	GSI-1D	-0.03	-0.02	0	9.19
10	GSI-1D	-0.02	-0.02	9.19	1.838
11	INT-1A	-0.001707	-0.01	0	1.148
12	INT-1A	-0.01	-0.02	1.148	2.297
13	INT-1A	-0.02	-0.03	2.297	3.445
14	INT-1B	-0.03	-0.02	0	1.148
15	INT-1B	-0.02	-0.007912	1.148	2.297
16	INT-1B	-0.007912	-0.0035	2.297	3.445
17	SA-1	-0.04	-0.03	2.346	3.225
18	SA-1	-0.03	-0.04	3.225	4.105
19	SA-1	-0.04	-0.03	4.105	4.985
20	SA-1	-0.03	-0.005191	4.985	5.864
21	CP-3A	-0.01	-0.01	0	3.9
22	CP-3B	-0.01	-0.01	0.009764	3.91
23	GSI-3A	-0.03	-0.03	4.74	1.432
24	GSI-3B	-0.03	-0.03	6.85	1.643
25	GSI-3C	-0.02	-0.03	0	7.17
26	GSI-3C	-0.03	-0.03	7.17	1.434
27	GSI-3C	-0.03	-0.03	1.434	2.151
28	GSI-3C	-0.03	-0.02	2.151	2.869
29	GSI-3D	-0.05	-0.02	0.8	4.98
30	GSI-3D	-0.02	-0.01	4.98	9.15
31	GSI-3D	-0.01	-0.02	9.15	1.333
32	GSI-3D	-0.02	-0.05	1.333	1.751
33	INT-3A	-0.003233	-0.00804	0	1.148
34	INT-3A	-0.00804	-0.02	1.148	2.297
35	INT-3A	-0.02	-0.03	2.297	3.445
36	INT-3B	-0.03	-0.02	0	1.148
37	INT-3B	-0.02	-0.008038	1.148	2.297
38	INT-3B	-0.008038	-0.00329	2.297	3.445
39	SA-3	-0.02	-0.03	2.346	3.519
40	SA-3	-0.03	-0.03	3.519	4.691
41	SA-3	-0.03	-0.03	4.691	5.864
42	CP-2A	-0.01	-0.01	0	3.94
43	CP-2B	-0.01	-0.01	0.009707	3.95
44	GSI-2A	-0.03	-0.03	4.84	1.453
45	GSI-2B	-0.03	-0.03	6.81	1.641
46	GSI-2C	-0.02	-0.02	0	7.18
47	GSI-2C	-0.02	-0.03	7.18	1.436
48	GSI-2C	-0.03	-0.03	1.436	2.155
49	GSI-2C	-0.03	-0.02	2.155	2.873
50	GSI-2D	-0.02	-0.02	0	9.19
51	GSI-2D	-0.02	-0.03	9.19	1.838
52	INT-2A	-0.003845	-0.007957	0	1.148
53	INT-2A	-0.007957	-0.02	1.148	2.297
54	INT-2A	-0.02	-0.03	2.297	3.445
55	INT-2B	-0.03	-0.02	0	1.148
56	INT-2B	-0.02	-0.01	1.148	2.297
57	INT-2B	-0.01	-0.001661	2.297	3.445



Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
 Job Number : TEP No. 25631.696298  
 Model Name : CCI BU No 876317

May 3, 2022  
 1:00 PM  
 Checked By: DC

**Member Distributed Loads (BLC 40 : BLC 18 Transient Area Loads) (Continued)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft]	Start Location[ft.%]	End Location[ft.%]
1	CP-1A	-0.01	-0.01	0	3.94
2	CP-1B	-0.01	-0.01	0.009707	3.95
3	GSI-1A	-0.03	-0.03	4.84	1.453
4	GSI-1B	-0.03	-0.03	6.81	1.641
5	GSI-1C	-0.02	-0.03	0	7.18
6	GSI-1C	-0.03	-0.03	7.18	1.436
7	GSI-1C	-0.03	-0.02	1.436	2.155
8	GSI-1C	-0.02	-0.02	2.155	2.873
9	GSI-1D	-0.03	-0.02	0	9.19
10	GSI-1D	-0.02	-0.02	9.19	1.838
11	INT-1A	-0.001707	-0.01	0	1.148
12	INT-1A	-0.01	-0.02	1.148	2.297
13	INT-1A	-0.02	-0.03	2.297	3.445
14	INT-1B	-0.03	-0.02	0	1.148
15	INT-1B	-0.02	-0.007912	1.148	2.297
16	INT-1B	-0.007912	-0.0035	2.297	3.445
17	SA-1	-0.04	-0.03	2.346	3.225
18	SA-1	-0.03	-0.04	3.225	4.105
19	SA-1	-0.04	-0.03	4.105	4.985
20	SA-1	-0.03	-0.005191	4.985	5.864
21	CP-3A	-0.01	-0.01	0	3.9
22	CP-3B	-0.01	-0.01	0.009764	3.91
23	GSI-3A	-0.03	-0.03	4.74	1.432
24	GSI-3B	-0.03	-0.03	6.85	1.643
25	GSI-3C	-0.02	-0.03	0	7.17
26	GSI-3C	-0.03	-0.03	7.17	1.434
27	GSI-3C	-0.03	-0.03	1.434	2.151
28	GSI-3C	-0.03	-0.02	2.151	2.869
29	GSI-3D	-0.05	-0.02	0.8	4.98
30	GSI-3D	-0.02	-0.01	4.98	9.15
31	GSI-3D	-0.01	-0.02	9.15	1.333
32	GSI-3D	-0.02	-0.05	1.333	1.751
33	INT-3A	-0.003233	-0.00804	0	1.148
34	INT-3A	-0.00804	-0.02	1.148	2.297
35	INT-3A	-0.02	-0.03	2.297	3.445
36	INT-3B	-0.03	-0.02	0	1.148
37	INT-3B	-0.02	-0.008038	1.148	2.297
38	INT-3B	-0.008038	-0.00329	2.297	3.445
39	SA-3	-0.02	-0.03	2.346	3.519
40	SA-3	-0.03	-0.03	3.519	4.691
41	SA-3	-0.03	-0.03	4.691	5.864
42	CP-2A	-0.01	-0.01	0	3.94
43	CP-2B	-0.01	-0.01	0.009707	3.95
44	GSI-2A	-0.03	-0.03	4.84	1.453
45	GSI-2B	-0.03	-0.03	6.81	1.641
46	GSI-2C	-0.02	-0.02	0	7.18
47	GSI-2C	-0.02	-0.03	7.18	1.436
48	GSI-2C	-0.03	-0.03	1.436	2.155
49	GSI-2C	-0.03	-0.02	2.155	2.873
50	GSI-2D	-0.02	-0.02	0	9.19
51	GSI-2D	-0.02	-0.03	9.19	1.838
52	INT-2A	-0.003845	-0.007957	0	1.148
53	INT-2A	-0.007957	-0.02	1.148	2.297
54	INT-2A	-0.02	-0.03	2.297	3.445
55	INT-2B	-0.03	-0.02	0	1.148
56	INT-2B	-0.02	-0.01	1.148	2.297
57	INT-2B	-0.01	-0.001661	2.297	3.445





Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
 Job Number : TEP No. 25631.696298  
 Model Name : CCI BU No 876317

May 3, 2022  
 1:00 PM  
 Checked By: DC

**Member Distributed Loads (BLC 40 : BLC 18 Transient Area Loads) (Continued)**

Member Label	Direction	Start Magnitude(k/ft)	End Magnitude(k/ft)	Start Location(ft)	End Location(ft)
58 SA-2	Y	-0.04	-0.03	2.346	3.225
59 SA-2	Y	-0.03	-0.04	3.225	4.105
60 SA-2	Y	-0.04	-0.03	4.105	4.985
61 SA-2	Y	-0.03	-0.005192	4.985	5.864

**Member Area Loads (BLC 1 : Dead)**

Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude(k/ft)
1 N179	N178	N169	N171	Y	Two Way	-0.12
2 N174	N172	N168	N170	Y	Two Way	-0.12
3 N175	N17	N18	N177	Y	Two Way	-0.12

**Member Area Loads (BLC 18 : Ice Weight)**

Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude(k/ft)
1 N174	N172	N168	N170	Y	Two Way	-0.05
2 N175	N17	N18	N177	Y	Two Way	-0.05
3 N179	N178	N169	N171	Y	Two Way	-0.05

**Envelope Joint Reactions**

Joint	X (k)	LC	Y (k)	LC	Z (k)	LC	MX (k-ft)	LC	MY (k-ft)	LC	MZ (k-ft)	LC
1 N1	max 1.141	2	2.47	34	847	6	918	6	1.492	6	4.12	10
2	min -1.769	26	303	10	-947	14	-991	30	-1.495	14	-7.402	34
3 N98	max 1.117	18	2.437	45	1.63	21	367	5	1.488	17	3.693	42
4	min -801	10	308	5	-1.085	13	-6.235	45	-1.488	9	-3.36	3
5 N100	max 1.097	18	2.437	39	1.045	7	6.27	39	1.471	11	3.773	58
6	min -785	10	307	15	-1.59	31	-34	15	-1.471	3	-4.12	17
7 Totals:	max 3.265	18	6.83	48	3.216	22						
8	min -3.265	26	2.737	89	-3.216	14						

**Envelope AISC 15th(360-16): LRF Steel Code Checks**

Member	Shape	Code Check	Loc(ft)	LC	Shear C	Loc(ft)	Dir	LC	phi*Pn	phi*Pn	phi*Mn	phi*Mn	Cb	Eqn
1 MP-2	PIPE 2.0	590	6.5	18	060	3	19	16.812	32.13	1.872	1.872	1.356		H1-1b
2 MP-1	PIPE 2.0	588	6.5	31	159	6.5	26	16.812	32.13	1.872	1.872	1.866		H1-1b
3 MP-5	PIPE 2.0	587	6.5	24	060	3	25	16.812	32.13	1.872	1.872	1.389		H1-1b
4 MP-6	PIPE 2.0	586	6.5	29	059	3	30	16.812	32.13	1.872	1.872	1.344		H1-1b
5 MP-3	PIPE 2.0	579	6.5	21	151	6.5	26	16.812	32.13	1.872	1.872	1.889		H1-1b
6 MP-7	PIPE 2.0	579	6.5	26	156	6.5	21	16.812	32.13	1.872	1.872	1.917		H1-1b
7 MP-4	PIPE 2.0	576	6.5	20	155	6.5	31	16.812	32.13	1.872	1.872	1.934		H1-1b
8 MP-6	PIPE 2.0	572	6.5	26	150	6.5	31	16.812	32.13	1.872	1.872	1.929		H1-1b
9 MP-9	PIPE 2.0	570	6.5	32	150	6.5	21	16.812	32.13	1.872	1.872	1.938		H1-1b
10 GSI-3B	BPL4.75x...	488	2.117	34	096	2.117	v	23	50.028	72.9	3.735	7.841	1.642	H2-1
11 GSI-3A	BPL4.75x...	485	0	34	096	0	v	29	50.028	72.9	3.735	7.841	1.641	H2-1
12 GSI-1B	BPL4.75x...	484	2.117	39	098	2.117	v	28	50.028	72.9	3.735	7.841	1.645	H2-1
13 GSI-2B	BPL4.75x...	484	2.117	44	097	2.117	v	18	50.028	72.9	3.735	7.841	1.639	H2-1
14 GSI-1A	BPL4.75x...	481	0	40	098	0	v	18	50.028	72.9	3.735	7.841	1.627	H2-1
15 GSI-2A	BPL4.75x...	480	0	45	098	0	v	24	50.028	72.9	3.735	7.841	1.644	H2-1
16 SR-1	PIPE 2.0	314	6.25	26	038	6.25	23	1.428	32.13	1.872	1.872	1.54		H1-1b
17 SR-2	PIPE 2.0	312	6.25	31	039	6.25	28	1.428	32.13	1.872	1.872	1.552		H1-1b
18 SR-3	PIPE 2.0	311	6.25	21	039	6.25	18	1.428	32.13	1.872	1.872	1.55		H1-1b
19 SA-3	HSS5X3X6	294	0	34	080	0	z	30	120.264	197.892	17.595	25.323	2.851	H1-1b
20 SA-1	HSS5X3X6	291	0	42	081	0	z	19	120.264	197.892	17.595	25.323	2.965	H1-1b
21 SA-2	HSS5X3X6	290	0	42	081	0	z	25	120.264	197.892	17.595	25.323	2.969	H1-1b
22 SRCP-3	L2.5x2.5x4	279	1.501	20	028	0	z	30	37.377	38.556	1.114	2.537	1.248	H2-1



Company : Tower Engineering Professionals, Inc.  
 Designer : ARH  
 Job Number : TEP No. 25631.696298  
 Model Name : CCI BU No 876317

May 3, 2022  
 1:00 PM  
 Checked By: DC

**Envelope AISC 15th(360-16): LRF Steel Code Checks (Continued)**

Member	Shape	Code Check	Loc(ft)	LC	Shear C	Loc(ft)	Dir	LC	phi*Pn	phi*Pn	phi*Mn	phi*Mn	Cb	Eqn
23 SRCP-1	L2.5x2.5x4	277	1.501	25	029	0	z	19	37.377	38.556	1.114	2.537	1.217	H2-1
24 SRCP-2	L2.5x2.5x4	266	1.501	30	028	1.501	z	24	37.377	38.556	1.114	2.537	1.203	H2-1
25 CP-2B	BPL5x4x...	223	0	28	255	0	z	26	52.745	70.875	3.501	6.82	1.153	H2-1
26 CP-2A	BPL5x4x...	222	3.95	30	252	3.95	z	31	52.745	70.875	3.501	6.82	1.125	H2-1
27 CP-1B	BPL5x4x...	219	0	22	249	0	z	21	52.745	70.875	3.501	6.82	1.131	H2-1
28 CP-3A	BPL5x4x...	216	3.91	19	252	3.91	z	21	52.745	70.875	3.501	6.82	1.121	H2-1
29 CP-3B	BPL5x4x...	211	0	33	250	0	z	31	52.745	70.875	3.501	6.82	1.126	H2-1
30 CP-1A	BPL5x4x...	204	3.95	24	247	3.95	z	26	52.745	70.875	3.501	6.82	1.138	H2-1
31 GSI-3D	PL1.5x1/4	195	1.831	21	033	915	v	20	7.228	12.15	0.63	38	1.917	H1-1b
32 GSI-2D	PL1.5x1/4	195	0	26	033	919	v	31	7.228	12.15	0.63	38	1.917	H1-1b
33 GSI-1D	PL1.5x1/4	187	0	21	032	919	v	26	7.228	12.15	0.63	38	1.918	H1-1b
34 SF1-TH	PIPE 3.0	176	3.516	29	102	1.563	31	6.489	78.246	6.899	6.899	1.417		H1-1b
35 FFTH	PIPE 3.0	172	3.516	29	106	10.938	26	6.489	78.246	6.899	6.899	1.441		H1-1b
36 SF2-TH	PIPE 3.0	172	3.516	18	102	1.563	21	6.489	78.246	6.899	6.899	1.409		H1-1b
37 GSI-2C	PL1.5x1/4	150	2.873	32	017	1.436	v	31	3.517	12.15	0.63	38	1.971	H1-1b
38 GSI-3C	PL1.5x1/4	146	2.869	21	017	1.434	v	20	3.517	12.15	0.63	38	1.977	H1-1b
39 GSI-1C	PL1.5x1/4	141	0	20	016	1.436	v	22	3.517	12.15	0.63	38	1.986	H1-1b

**Envelope None Cold Formed Steel Code Checks**

Member	Shape	Code Check	Loc(ft)	LC	Shear C	Loc(ft)	Dir	LC	Pn(k)	Tr(k)	Mnyy(k)	Mzzz(k)	Cb	Cmyy	Cmzz	Eqn
No Data to Print ...																

**APPENDIX D**  
**ADDITIONAL CALCULATIONS**



**TOWER  
ENGINEERING  
PROFESSIONALS**

**CCI BU No 876317**

**TEP No.** 25631.696298

**Analysis By:** ARH 5/3/2022

**Checked By:** DC 5/3/2022

## Moment Bolt Group - Support Arm

Code Revisions:	ANSI/TIA-222-H
Bolt Type:	Headed Bolts

### Connection Inputs:

Bolt Size:	0.75	in
# Bolts:	4	
Plate Width:	10.00	in
Plate Height:	10.00	in
Bolt H Gap:	7.00	in
Bolt V Gap:	7.00	in
Plate T:	0.75	in
Slip Member Ø:	N/A	in
Bolt Grade:	A325N	

### Capacities:

Bolt Capacity=	21.1%	PASS
Plate Capacity=	27.8%	PASS

### Bolt Properties:

$F_{y\text{bolt}}$ :	92.0	ksi
$F_{u\text{bolt}}$ :	120.0	ksi
r:	4.9	in
J:	98.0	in <sup>4</sup> /in <sup>2</sup>
$A_{\text{bolt}}$ :	0.4	in <sup>2</sup>
$A_{\text{bolt, Net Tensile}}$ :	0.3	in <sup>2</sup>
Pretension:	28.1	kips

### Member Properties:

Member Shape:	Flat	
Plate $F_y$ :	36.0	ksi
Plate $F_u$ :	58.0	ksi
Member Height:	5.0	in
Member Width:	3.0	in

Date: **May 09, 2022**



B+T Group  
1717 S. Boulder, Suite 300  
Tulsa, OK 74119  
(918) 587-4630

**Subject:** **Structural Analysis Report**

**Carrier Designation:** **T-Mobile Co-Locate**  
**Site Number:** CT11269B  
**Site Name:** Waterbury/I-84/Mattatuck

**Crown Castle Designation:** **BU Number:** 876317  
**Site Name:** Waterbury  
**JDE Job Number:** 715098  
**Work Order Number:** 2108881  
**Order Number:** 614658 Rev. 0

**Engineering Firm Designation:** **B+T Group Project Number:** 79982.012.01

**Site Data:** **150 Mattatuck Heights, Waterbury, New Haven County, CT**  
**Latitude 41° 32' 16.3", Longitude -72° 59' 6.1"**  
**144.25 Foot - Monopole Tower**

B+T Group is pleased to submit this "**Structural Analysis Report**" to determine the structural integrity of the above-mentioned tower.

The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

LC7: Proposed Equipment Configuration **Sufficient Capacity – 99.4%**

This analysis utilizes an ultimate 3-second gust wind speed of 118 mph as required by the 2018 Connecticut State Building Code. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Structural analysis prepared by: Massood Sattari

Respectfully submitted by: B+T Engineering, Inc.  
COA: PEC.0001564; Expires: 02/01/2023



Chad E. Tuttle, P.E.

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## 1) INTRODUCTION

This tower is a 134.25 ft. Monopole tower designed by Valmont. A 10-ft tower extension has been considered in this analysis, bringing the total tower height to 144.25 ft.

The tower has been modified multiple times to accommodate additional loading.

## 2) ANALYSIS CRITERIA

<b>TIA-222 Revision:</b>	TIA-222-H
<b>Risk Category:</b>	II
<b>Wind Speed:</b>	118 mph
<b>Exposure Category:</b>	B
<b>Topographic Factor:</b>	1
<b>Ice Thickness:</b>	1 in
<b>Wind Speed with Ice:</b>	50 mph
<b>Service Wind Speed:</b>	60 mph

**Table 1 - Proposed Equipment Configuration**

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)	
100.0	101.0	3	Ericsson	AIR -32 B2A/B66AA	2 1	1-1/2 1-5/8	
		3	Ericsson	AIR 6419 B41_TMO			
		3	Ericsson	RADIO 4449 B71 B85A_T-MOBILE			
		3	Ericsson	RADIO 4460 B2/B25 B66_TMO			
		3	RFS Celwave	APXVAARR24_43-U-NA20			
	100.0	1	1	Site Pro1			HRK12 Support Rail Kit
			1	--			Platform Mount [LP 303-1]

**Table 2 - Other Considered Equipment**

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)	
144.0	145.0	3	Ericsson	AIR 6419 B77G_CCIV3	6 3 1	13/16 3/8 7/8	
		3	--	2" Std. x 10' long mount pipe			
	144.0	1	1	Site Pro 1			F3P-12W
			1	--			Miscellaneous [NA 507-1]
			3	Ericsson			2012 B29
	143.0	3	3	Ericsson			RADIO 4415 B30
			3	Ericsson			RRUS 4449 B5/B12
			3	Ericsson			RRUS 4478 B14
			3	Ericsson			RRUS 8843 B2/B66A
			3	Kmw Comm.			EPBQ-654L8H8-L2
			3	Quintel Tech.			QD8616-7
			2	Raycap			DC6-48-60-18-8F
			1	Raycap			DC9-48-60-24-8C-EV
	141.0	3	Ericsson	AIR 6449 B77D_CCVI2			
	130.0	133.0	1	Andrew			VHLP2-18

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
	130.0	2	Andrew	VHLP2-23	3	Elliptical 1-1/2
		6	Alcatel Lucent	1900MHZ RRH (65MHZ)	1	
		3	Alcatel Lucent	800 EXTERNAL NOTCH FILTER		
		3	Alcatel Lucent	800MHZ RRH		
		3	Nokia	AAHC		
		4	RFS Celwave	APXVSPP18-C-A20		
		4	RFS Celwave	IBC1900HB-2		
		2	RFS Celwave	PD2DE-700/2700		
		1	--	Pipe Mount [PM 601-3]		
		1	--	Platform Mount [LP 602-1]		
120.0	120.0	3	Fujitsu	TA08025-B604	1	1-1/2
		3	Fujitsu	TA08025-B605		
		3	Jma Wireless	MX08FRO665-21		
		1	Raycap	RDIDC-9181-PF-48		
		1	--	Commscope MC-PK8-DSH		
110.0	113.0	1	Trimble	BULLET III	6 2 1	1-5/8 1-1/4 1/2
	110.0	3	Commscope	BSAMNT-SBS-1-2		
		6	Andrew	SBNHH-1D65B		
		3	Antel	BXA-80063/4CF		
		1	Raycap	RVZDC-6627-PF-48		
		3	Samsung Telecom.	MT6407-77A		
		3	Samsung Telecom.	RFV01U-D1A		
		3	Samsung Telecom.	RFV01U-D2A		
1	--	Platform Mount [LP 713-1]				
50.0	51.0	1	Lucent	KS24019-L112A	1	1/2
	50.0	1	--	Side Arm Mount [SO 701-1]		

### 3) ANALYSIS PROCEDURE

**Table 3 - Documents Provided**

Document	Reference	Source
Tower Manufacturer Drawing	1530953	CCI Sites
Tower Modification Drawing	2381113	CCI Sites
Post Modification Inspection	2381112	CCI Sites
Tower Modification Drawing	3315244	CCI Sites
Post Modification Inspection	3770745	CCI Sites
Tower Modification Drawing	8142142	CCI Sites
Post Modification Inspection	8624542	CCI Sites
Foundation Drawing	1630930	CCI Sites

Document	Reference	Source
Geotech Report	1529737	CCI Sites
Crown CAD Package	Date: 04/27/2022	CCI Sites

### 3.1) Analysis Method

tnxTower (version 8.1.1.0), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A. When applicable, Crown Castle has calculated and provided the effective area for panel antennas using approved methods following the intent of the TIA-222 standard.

tnxTower was used to determine the loads on the modified structure. Additional calculations were performed to determine the stresses in the pole and in the reinforcing elements. These calculations are included in Appendix C.

### 3.2) Assumptions

- 1) The tower and structures were maintained in accordance with the - TIA-222 standard.
- 2) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.

This analysis may be affected if any assumptions are not valid or have been made in error. B+T Group should be notified to determine the effect on the structural integrity of the tower.

## 4) ANALYSIS RESULTS

**Table 4 - Section Capacity (Summary)**

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
L1	144.25 - 139.25	Pole	TP12.75x12.75x0.375	1	-4.510	--	13.9	Pass
L2	139.25 - 134.75	Pole	TP12.75x12.75x0.375	2	-4.793	--	28.5	Pass
L3	134.75 - 134.25	Pole	TP13.48x13.48x0.375	3	-4.828	--	26.9	Pass
L4	134.25 - 129.25	Pole	TP14.466x13.48x0.1875	4	-8.608	--	54.2	Pass
L5	129.25 - 124.25	Pole	TP15.452x14.466x0.1875	5	-8.883	--	73.2	Pass
L6	124.25 - 123.42	Pole	TP15.616x15.452x0.1875	6	-8.944	--	75.9	Pass
L7	123.42 - 123.17	Pole + Reinf.	TP15.665x15.616x0.5375	7	-8.982	--	49.5	Pass
L8	123.17 - 118.17	Pole + Reinf.	TP16.651x15.665x0.5125	8	-12.422	--	62.6	Pass
L9	118.17 - 113.17	Pole + Reinf.	TP17.637x16.651x0.4875	9	-13.025	--	76.1	Pass
L10	113.17 - 109.5	Pole + Reinf.	TP18.36x17.637x0.475	10	-16.653	--	85.8	Pass
L11	109.5 - 109.25	Pole + Reinf.	TP18.409x18.36x0.5875	11	-16.708	--	72.3	Pass
L12	109.25 - 104.75	Pole + Reinf.	TP19.296x18.409x0.5625	12	-17.438	--	84.2	Pass
L13	104.75 - 104.5	Pole + Reinf.	TP19.346x19.296x0.775	13	-17.503	--	68.0	Pass
L14	104.5 -	Pole + Reinf.	TP19.756x19.346x0.7625	14	-17.935	--	72.2	Pass



Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
	102.42							
L15	102.42 - 102.17	Pole + Reinf.	TP19.806x19.756x0.5625	15	-17.994	--	90.1	Pass
L16	102.17 - 98.75	Pole + Reinf.	TP20.479x19.806x0.55	16	-22.016	--	99.1	Pass
L17	98.75 - 98.5	Pole + Reinf.	TP20.528x20.479x0.8375	17	-22.098	--	86.7	Pass
L18	98.5 - 97.5	Pole + Reinf.	TP20.726x20.528x0.8375	18	-22.351	--	75.4	Pass
L19	97.5 - 97.25	Pole + Reinf.	TP20.775x20.726x0.75	19	-22.422	--	87.8	Pass
L20	97.25 - 95.55	Pole + Reinf.	TP21.81x20.775x0.7375	20	-22.837	--	91.7	Pass
L21	95.55 - 90.55	Pole + Reinf.	TP21.73x20.735x0.8	21	-24.893	--	95.4	Pass
L22	90.55 - 89.25	Pole + Reinf.	TP21.989x21.73x0.775	22	-25.253	--	97.7	Pass
L23	89.25 - 89	Pole + Reinf.	TP22.039x21.989x1	23	-25.346	--	84.4	Pass
L24	89 - 88.25	Pole + Reinf.	TP22.189x22.039x0.975	24	-25.575	--	70.6	Pass
L25	88.25 - 88	Pole + Reinf.	TP22.238x22.189x0.7625	25	-25.647	--	80.8	Pass
L26	88 - 87.83	Pole + Reinf.	TP22.272x22.238x0.7625	26	-25.694	--	81.0	Pass
L27	87.83 - 87.58	Pole + Reinf.	TP22.321x22.272x0.675	27	-25.754	--	85.9	Pass
L28	87.58 - 82.58	Pole + Reinf.	TP23.317x22.321x0.65	28	-26.997	--	92.7	Pass
L29	82.58 - 77.58	Pole + Reinf.	TP24.312x23.317x0.625	29	-28.278	--	98.7	Pass
L30	77.58 - 77	Pole + Reinf.	TP24.428x24.312x0.625	30	-28.437	--	99.4	Pass
L31	77 - 76.75	Pole + Reinf.	TP24.478x24.428x0.825	31	-28.520	--	93.2	Pass
L32	76.75 - 76.33	Pole + Reinf.	TP24.561x24.478x0.825	32	-28.644	--	93.7	Pass
L33	76.33 - 76.08	Pole + Reinf.	TP24.611x24.561x0.825	33	-28.718	--	94.8	Pass
L34	76.08 - 74.25	Pole + Reinf.	TP24.976x24.611x0.8	34	-29.230	--	96.8	Pass
L35	74.25 - 74	Pole + Reinf.	TP25.026x24.976x0.8875	35	-29.327	--	85.5	Pass
L36	74 - 73.75	Pole + Reinf.	TP25.076x25.026x0.8875	36	-29.403	--	85.7	Pass
L37	73.75 - 73.5	Pole + Reinf.	TP25.125x25.076x0.9125	37	-29.482	--	84.9	Pass
L38	73.5 - 68.5	Pole + Reinf.	TP26.121x25.125x0.875	38	-31.044	--	89.5	Pass
L39	68.5 - 63.5	Pole + Reinf.	TP27.116x26.121x0.85	39	-32.637	--	93.7	Pass
L40	63.5 - 60.5	Pole + Reinf.	TP27.714x27.116x0.825	40	-33.607	--	96.1	Pass
L41	60.5 - 60.25	Pole + Reinf.	TP27.763x27.714x0.825	41	-33.698	--	96.3	Pass
L42	60.25 - 59.5	Pole + Reinf.	TP27.913x27.763x0.825	42	-33.935	--	96.9	Pass
L43	59.5 - 59.25	Pole + Reinf.	TP27.962x27.913x0.8875	43	-34.027	--	90.6	Pass
L44	59.25 - 54.25	Pole + Reinf.	TP28.958x27.962x0.85	44	-35.723	--	94.1	Pass
L45	54.25 - 50	Pole + Reinf.	TP30.64x28.958x0.8375	45	-37.194	--	96.9	Pass
L46	50 - 44.8	Pole + Reinf.	TP30.333x29.304x0.8375	46	-40.327	--	98.7	Pass
L47	44.8 - 43.58	Pole + Reinf.	TP30.574x30.333x0.8375	47	-40.762	--	99.3	Pass
L48	43.58 - 43.33	Pole + Reinf.	TP30.624x30.574x0.85	48	-40.869	--	98.4	Pass
L49	43.33 - 43.17	Pole + Reinf.	TP30.657x30.624x0.85	49	-40.934	--	98.5	Pass
L50	43.17 - 42.92	Pole + Reinf.	TP30.706x30.657x0.9375	50	-41.032	--	93.2	Pass
L51	42.92 - 39	Pole + Reinf.	TP31.481x30.706x0.9125	51	-42.568	--	95.1	Pass
L52	39 - 38.75	Pole + Reinf.	TP31.531x31.481x0.95	52	-42.586	--	89.9	Pass
L53	38.75 - 37.17	Pole + Reinf.	TP31.844x31.531x0.9375	53	-42.704	--	90.6	Pass
L54	37.17 - 36.92	Pole + Reinf.	TP31.894x31.844x0.8875	54	-43.346	--	94.1	Pass
L55	36.92 - 34	Pole + Reinf.	TP32.471x31.894x0.8875	55	-43.462	--	95.4	Pass
L56	34 - 33.75	Pole + Reinf.	TP32.52x32.471x0.875	56	-44.629	--	95.4	Pass

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
L57	33.75 - 29.75	Pole + Reinf.	TP33.312x32.52x0.8625	57	-44.736	--	97.0	Pass
L58	29.75 - 29.5	Pole + Reinf.	TP33.361x33.312x0.8625	58	-46.295	--	96.0	Pass
L59	29.5 - 24.5	Pole + Reinf.	TP34.351x33.361x0.85	59	-46.404	--	97.8	Pass
L60	24.5 - 23	Pole + Reinf.	TP34.648x34.351x0.8375	60	-48.406	--	98.4	Pass
L61	23 - 22.75	Pole + Reinf.	TP34.697x34.648x0.9625	61	-48.997	--	91.2	Pass
L62	22.75 - 21.58	Pole + Reinf.	TP34.928x34.697x0.9625	62	-49.116	--	91.6	Pass
L63	21.58 - 21.33	Pole + Reinf.	TP34.978x34.928x0.85	63	-49.620	--	96.7	Pass
L64	21.33 - 16.33	Pole + Reinf.	TP35.967x34.978x0.8375	64	-49.735	--	98.2	Pass
L65	16.33 - 12.92	Pole + Reinf.	TP36.644x35.967x0.825	65	-51.856	--	99.2	Pass
L66	12.92 - 12.67	Pole + Reinf.	TP36.693x36.644x0.9125	66	-53.310	--	89.9	Pass
L67	12.67 - 12.5	Pole + Reinf.	TP36.726x36.693x0.9125	67	-53.426	--	90.0	Pass
L68	12.5 - 12.25	Pole + Reinf.	TP36.776x36.726x0.7625	68	-53.505	--	93.3	Pass
L69	12.25 - 12	Pole + Reinf.	TP36.825x36.776x0.7625	69	-53.610	--	93.4	Pass
L70	12 - 11.75	Pole + Reinf.	TP36.874x36.825x0.6625	70	-53.715	--	95.5	Pass
L71	11.75 - 8.5	Pole + Reinf.	TP37.518x36.874x0.65	71	-53.827	--	96.2	Pass
L72	8.5 - 8.25	Pole + Reinf.	TP37.567x37.518x0.925	72	-55.112	--	78.9	Pass
L73	8.25 - 7	Pole + Reinf.	TP37.815x37.567x0.9125	73	-55.242	--	79.2	Pass
L74	7 - 6.75	Pole + Reinf.	TP37.864x37.815x0.8125	74	-55.832	--	91.7	Pass
L75	6.75 - 1.75	Pole + Reinf.	TP38.854x37.864x0.7875	75	-55.950	--	92.9	Pass
L76	1.75 - 0	Pole + Reinf.	TP39.2x38.854x0.7875	76	-58.133	--	93.3	Pass
							Summary	
						Pole (L6)	85.4	Pass
						Reinforcement	99.4	Pass
						Rating =	99.4	Pass

**Table 5 - Tower Component Stresses vs. Capacity – LC7**

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1,2	Flange Connection	134.25	42.6	Pass
1,2	Anchor Rods	Base	92.9	Pass
1,2	Base Plate	Base	64.4	Pass
1,2	Base Foundation (Structure)	Base	22.0	Pass
1,2	Base Foundation (Soil Interaction)	Base	90.1	Pass

<b>Structure Rating (max from all components) =</b>	<b>99.4%</b>
---	--------------

Notes:

- 1) See additional documentation in "Appendix C – Additional Calculations" for calculations supporting the % capacity consumed.
- 2) Rating per TIA-222-H Section 15.5.

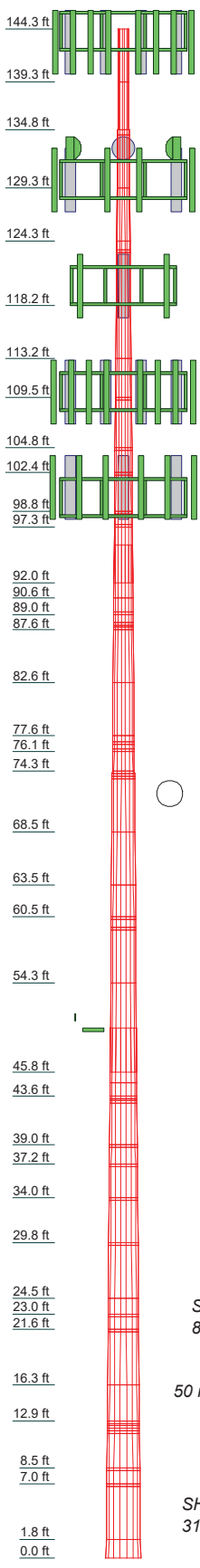
#### 4.1) Recommendations

The tower and its foundation have sufficient capacity to carry the proposed load configuration. No modifications are required at this time.

**APPENDIX A**

**TNXTOWER OUTPUT**

Section	Length (ft)	Number of Sides	Thickness (in)	Socket Length (ft)	Top Dia (in)	Bot Dia (in)	Grade	Weight (K)
1	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
2	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
3	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
4	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
5	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
6	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
7	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
8	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
9	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
10	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
11	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
12	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
13	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
14	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
15	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
16	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
17	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
18	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
19	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
20	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
21	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
22	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
23	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
24	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
25	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
26	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
27	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
28	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
29	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
30	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
31	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
32	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
33	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
34	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
35	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
36	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
37	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
38	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
39	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
40	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
41	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
42	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
43	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
44	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
45	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
46	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
47	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
48	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
49	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
50	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
51	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
52	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
53	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
54	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
55	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
56	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
57	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
58	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
59	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
60	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
61	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
62	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
63	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
64	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
65	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
66	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
67	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
68	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
69	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
70	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
71	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
72	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
73	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
74	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
75	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
76	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
77	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
78	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
79	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
80	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
81	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
82	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
83	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
84	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
85	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
86	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
87	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
88	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
89	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
90	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
91	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
92	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
93	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
94	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
95	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
96	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
97	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
98	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
99	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2
100	5.000	0	0.375	3.552	12.750	12.750	A500-46	0.2

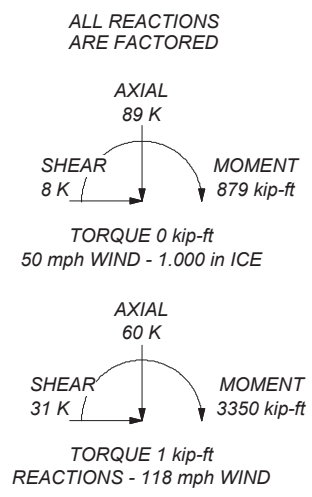


**MATERIAL STRENGTH**

GRADE	Fy	Fu	GRADE	Fy	Fu
A500-46	46 ksi	62 ksi	A572-65	65 ksi	80 ksi

**TOWER DESIGN NOTES**

1. Tower is located in New Haven County, Connecticut.
2. Tower designed for Exposure B to the TIA-222-H Standard.
3. Tower designed for a 118 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 50 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0.000 ft
8. TIA-222-H Annex S
9. TOWER RATING:99.4%





**B+T Group**  
1717 S. Boulder, Suite 300  
Tulsa, OK 74119  
Phone: (918) 587-4630  
FAX: (918) 295-0265

Job: **79982.012.01 - WATERBURY, CT (BU# 87631)**

Project:		
Client: Crown Castle	Drawn by: Jayaraj B	App'd:
Code: TIA-222-H	Date: 05/09/22	Scale: NTS
Path:	Dwg No. E-1	

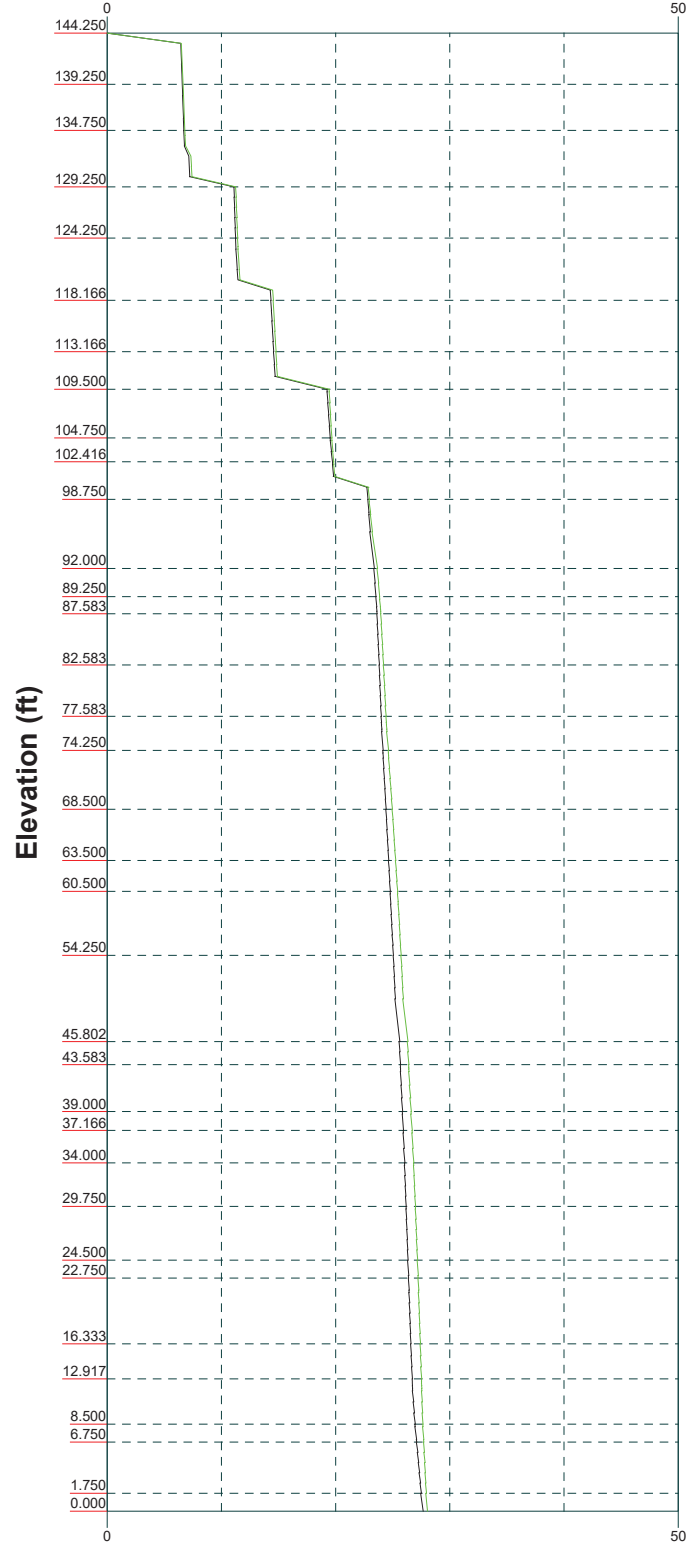
Vx

Vz

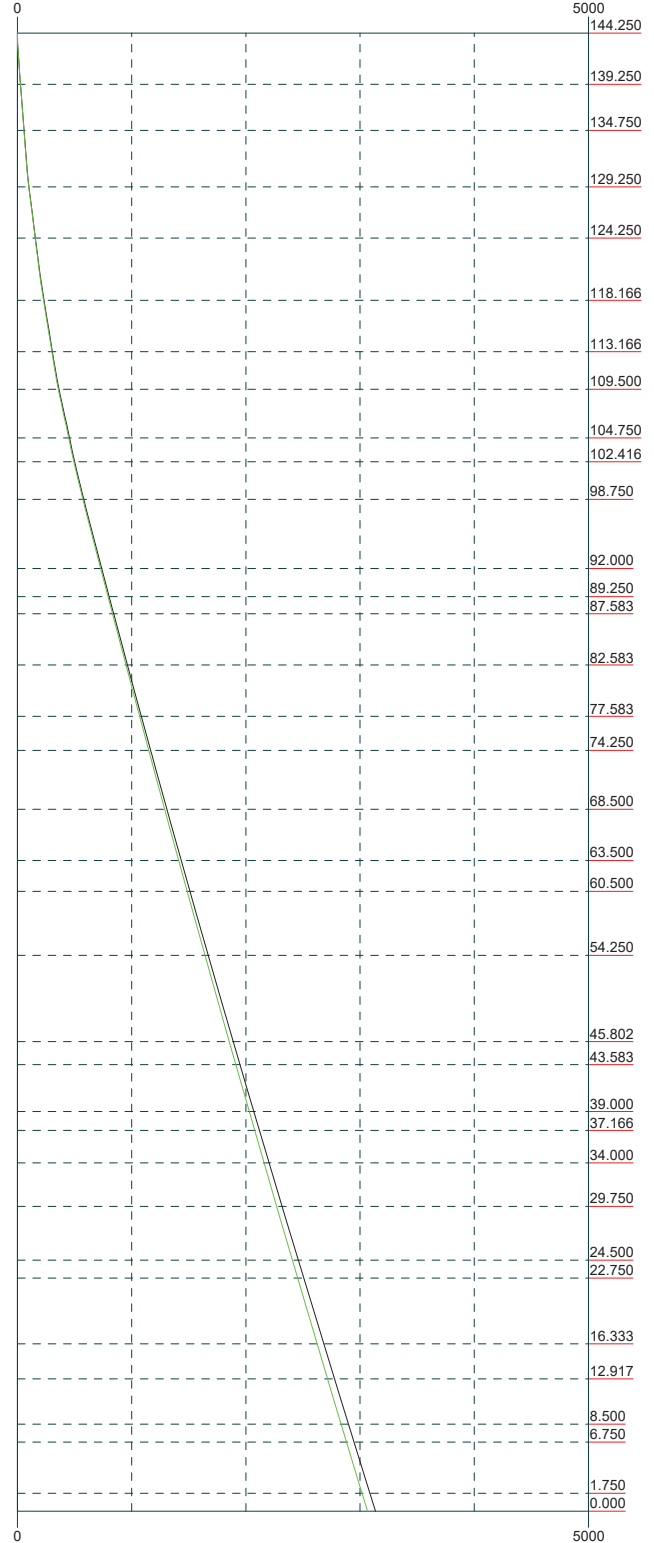
Mx

Mz

Global Mast Shear (K)

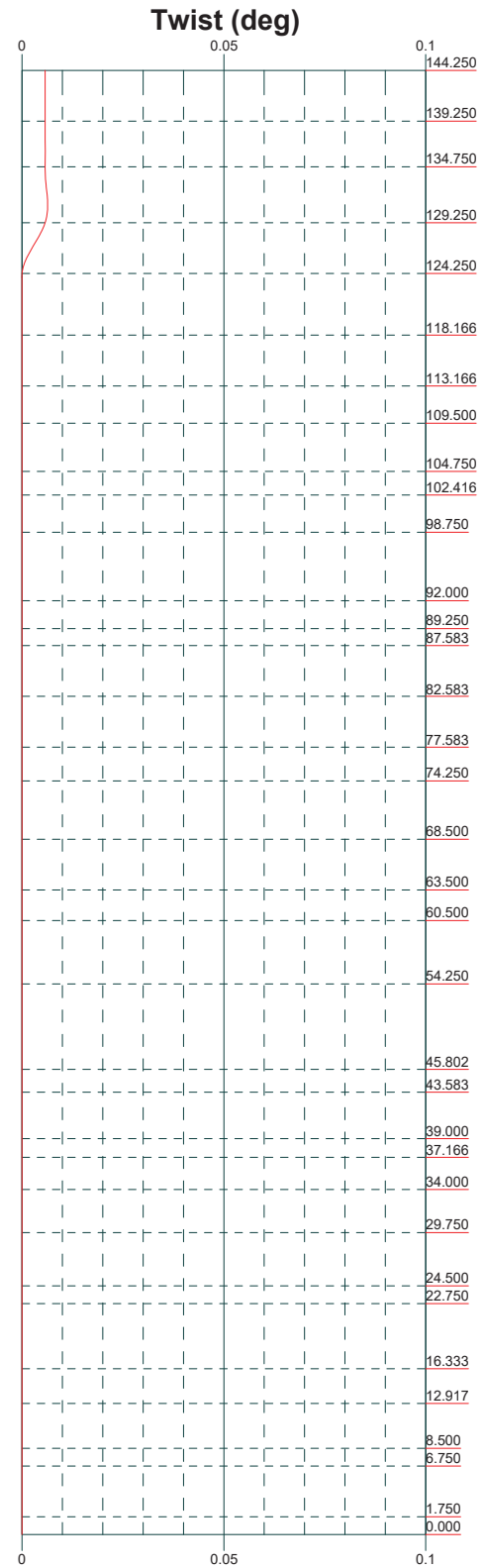
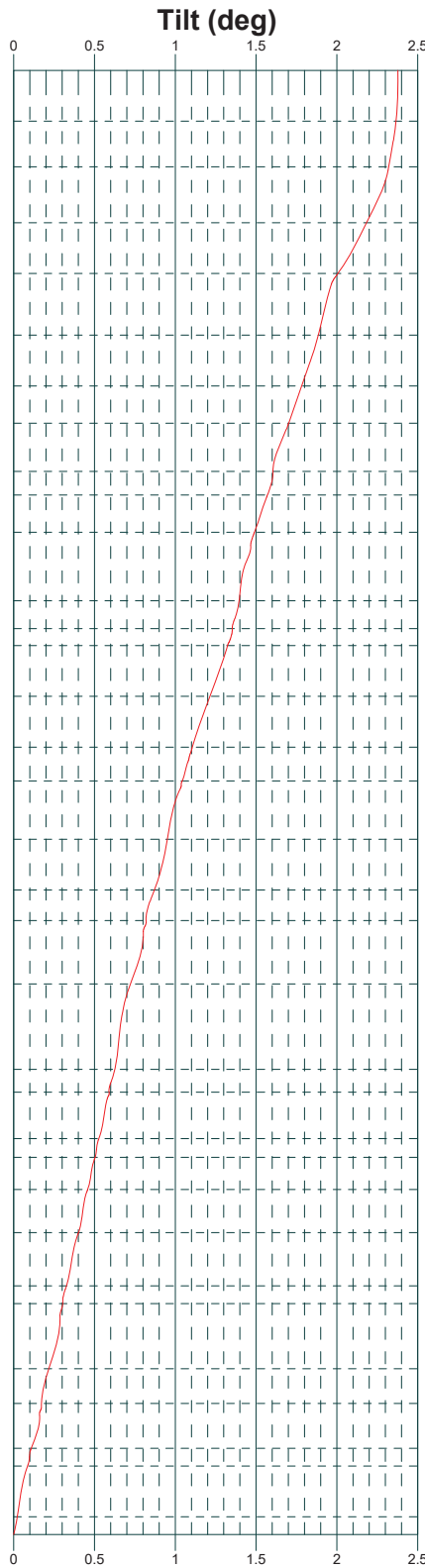
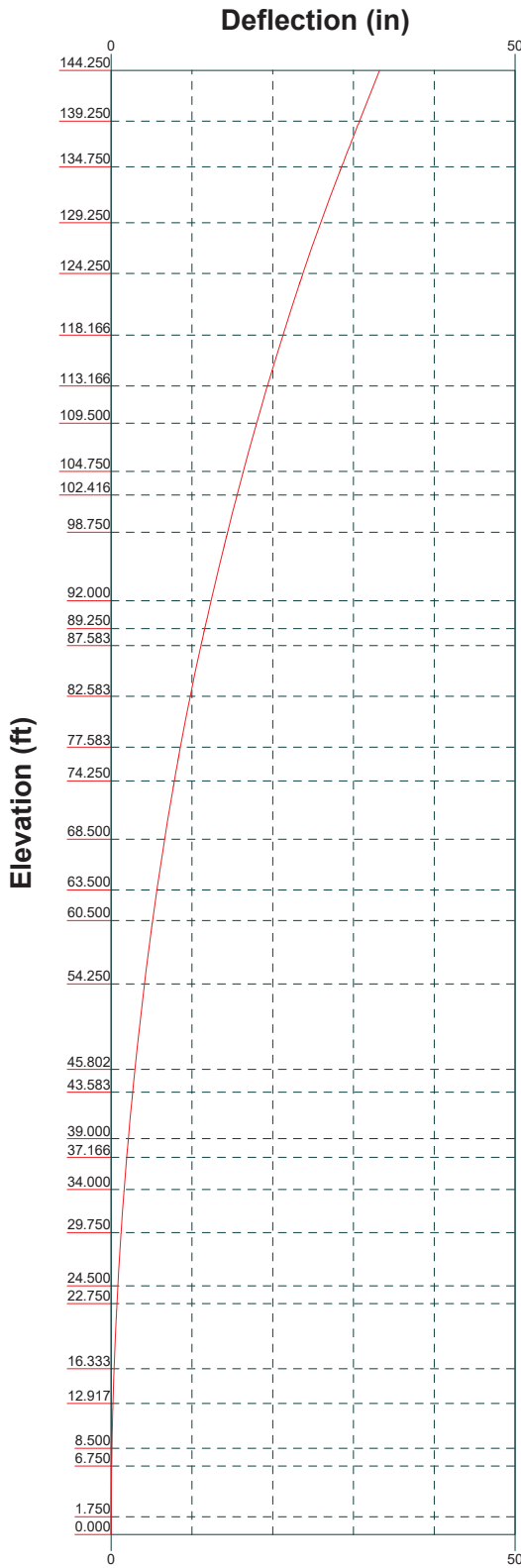


Global Mast Moment (kip-ft)



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Project:		
Client: Crown Castle	Drawn by: Jayaraj B	App'd:
Code: TIA-222-H	Date: 05/09/22	Scale: NTS
Path:	Dwg No: E-4	



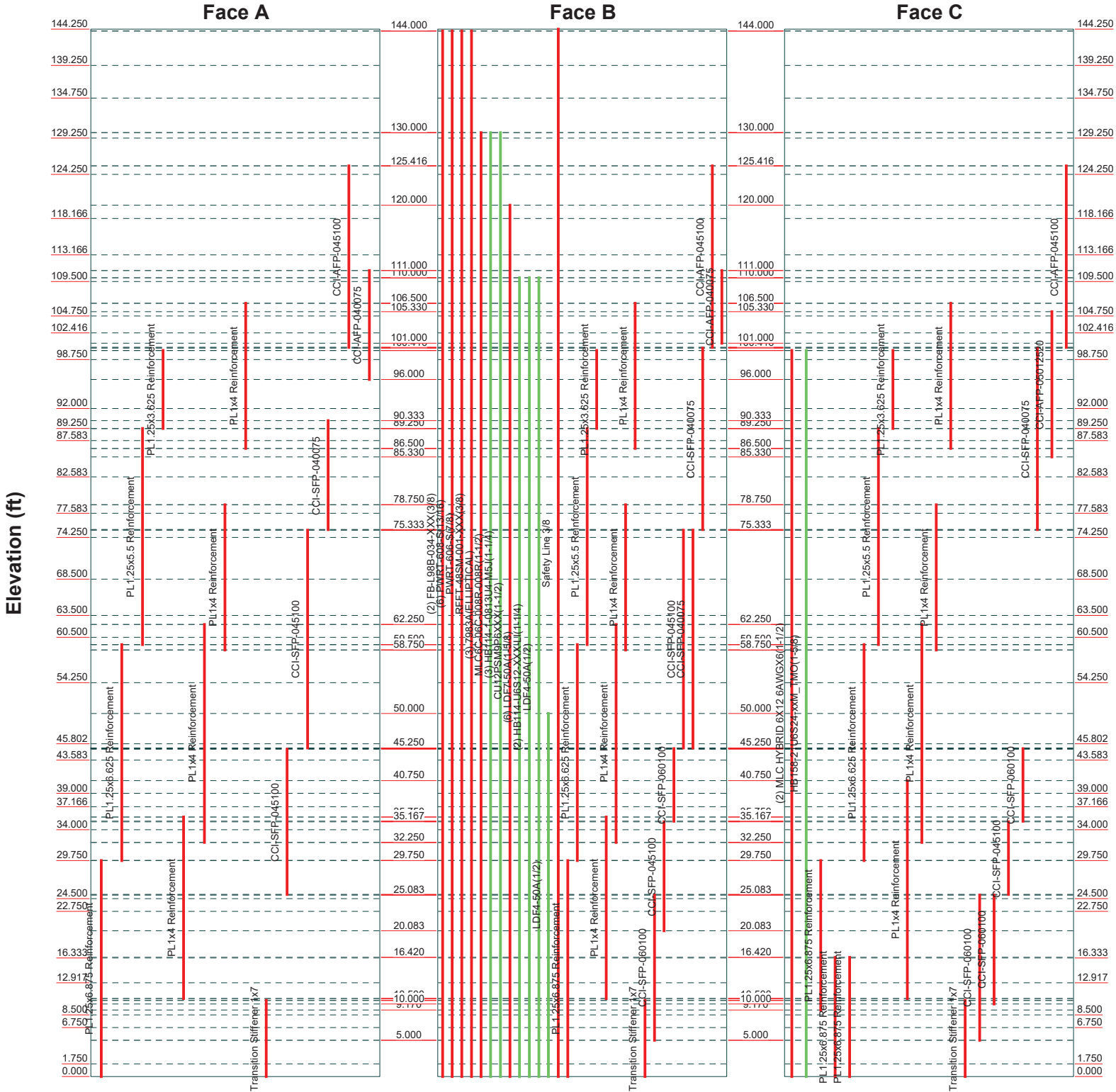
**B+T Group**  
 1717 S. Boulder, Suite 300  
 Tulsa, OK 74119  
 Phone: (918) 587-4630  
 FAX: (918) 295-0265

Job: <b>79982.012.01 - WATERBURY, CT (BU# 87631)</b>		
Project:		
Client: Crown Castle	Drawn by: Jayaraj B	App'd:
Code: TIA-222-H	Date: 05/09/22	Scale: NTS
Path:		Dwg No: E-5

# Feed Line Distribution Chart

## 0' - 144'3"

— Round   
 — Flat   
 — App In Face   
 — App Out Face   
 — Truss Leg



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	<b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265

Job: <b>79982.012.01 - WATERBURY, CT (BU# 87631)</b>			
Project:			
Client: Crown Castle	Drawn by: Jayaraj B	App'd:	
Code: TIA-222-H	Date: 05/09/22	Scale: NTS	
Path:		Dwg No. E-7	

<b>tnxTower</b>  <b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	<b>Job</b> 79982.012.01 - WATERBURY,CT (BU# 876317)	<b>Page</b> 1 of 95
	<b>Project</b>	<b>Date</b> 16:40:32 05/09/22
	<b>Client</b> Crown Castle	<b>Designed by</b> Jayaraj B

## Tower Input Data

The tower is a monopole.

This tower is designed using the TIA-222-H standard.

The following design criteria apply:

Tower is located in New Haven County, Connecticut.

Tower base elevation above sea level: 660.000 ft.

Basic wind speed of 118 mph.

Risk Category II.

Exposure Category B.

Simplified Topographic Factor Procedure for wind speed-up calculations is used.

Topographic Category: 1.

Crest Height: 0.000 ft.

Nominal ice thickness of 1.000 in.

Ice thickness is considered to increase with height.

Ice density of 56.000 pcf.

A wind speed of 50 mph is used in combination with ice.

Temperature drop of 50.000 °F.

Deflections calculated using a wind speed of 60 mph.

TIA-222-H Annex S.

TOWER RATING:99.4%.

A non-linear (P-delta) analysis was used.

Pressures are calculated at each section.

Stress ratio used in pole design is 1.

Tower analysis based on target reliabilities in accordance with Annex S.

Load Modification Factors used:  $K_{es}(F_w) = 0.95$ ,  $K_{es}(t_i) = 0.85$ .

Maximum demand-capacity ratio is: 1.05.

Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

## Options

<ul style="list-style-type: none"> <li>Consider Moments - Legs</li> <li>Consider Moments - Horizontals</li> <li>Consider Moments - Diagonals</li> <li>Use Moment Magnification</li> <li>√ Use Code Stress Ratios</li> <li>√ Use Code Safety Factors - Guys</li> <li>Escalate Ice</li> <li>Always Use Max Kz</li> <li>Use Special Wind Profile</li> <li>Include Bolts In Member Capacity</li> <li>Leg Bolts Are At Top Of Section</li> <li>Secondary Horizontal Braces Leg</li> <li>Use Diamond Inner Bracing (4 Sided)</li> <li>SR Members Have Cut Ends</li> <li>SR Members Are Concentric</li> </ul>	<ul style="list-style-type: none"> <li>Distribute Leg Loads As Uniform</li> <li>Assume Legs Pinned</li> <li>√ Assume Rigid Index Plate</li> <li>√ Use Clear Spans For Wind Area</li> <li>Use Clear Spans For KL/r</li> <li>Retension Guys To Initial Tension</li> <li>√ Bypass Mast Stability Checks</li> <li>√ Use Azimuth Dish Coefficients</li> <li>√ Project Wind Area of Appurt.</li> <li>Autocalc Torque Arm Areas</li> <li>Add IBC .6D+W Combination</li> <li>Sort Capacity Reports By Component</li> <li>Triangulate Diamond Inner Bracing</li> <li>Treat Feed Line Bundles As Cylinder</li> <li>Ignore KL/ry For 60 Deg. Angle Legs</li> </ul>	<ul style="list-style-type: none"> <li>Use ASCE 10 X-Brace Ly Rules</li> <li>Calculate Redundant Bracing Forces</li> <li>Ignore Redundant Members in FEA</li> <li>SR Leg Bolts Resist Compression</li> <li>All Leg Panels Have Same Allowable</li> <li>Offset Girt At Foundation</li> <li>√ Consider Feed Line Torque</li> <li>Include Angle Block Shear Check</li> <li>Use TIA-222-H Bracing Resist. Exemption</li> <li>Use TIA-222-H Tension Splice Exemption</li> <li style="background-color: #e0e0e0;">Poles</li> <li>√ Include Shear-Torsion Interaction</li> <li>Always Use Sub-Critical Flow</li> <li>Use Top Mounted Sockets</li> <li>Pole Without Linear Attachments</li> <li>Pole With Shroud Or No Appurtenances</li> <li>Outside and Inside Corner Radii Are Known</li> </ul>
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<b>tnxTower</b>  <b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	<b>Job</b> 79982.012.01 - WATERBURY,CT (BU# 876317)	<b>Page</b> 2 of 95
	<b>Project</b>	<b>Date</b> 16:40:32 05/09/22
	<b>Client</b> Crown Castle	<b>Designed by</b> Jayaraj B

## Tapered Pole Section Geometry

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L1	144.250-139.250	5.000	0.000	Round	12.750	12.750	0.375		A500-46 (46 ksi)
L2	139.250-134.750	4.500	0.000	Round	12.750	12.750	0.375		A500-46 (46 ksi)
L3	134.750-134.250	0.500	0.000	Round	13.480	13.480	0.375		A500-46 (46 ksi)
L4	134.250-129.250	5.000	0.000	12	13.480	14.466	0.188	0.750	A572-65 (65 ksi)
L5	129.250-124.250	5.000	0.000	12	14.466	15.452	0.188	0.750	A572-65 (65 ksi)
L6	124.250-123.416	0.834	0.000	12	15.452	15.616	0.188	0.750	A572-65 (65 ksi)
L7	123.416-123.166	0.250	0.000	12	15.616	15.665	0.537	2.150	A572-65 (65 ksi)
L8	123.166-118.166	5.000	0.000	12	15.665	16.651	0.512	2.050	A572-65 (65 ksi)
L9	118.166-113.166	5.000	0.000	12	16.651	17.637	0.487	1.950	A572-65 (65 ksi)
L10	113.166-109.500	3.666	0.000	12	17.637	18.360	0.475	1.900	A572-65 (65 ksi)
L11	109.500-109.250	0.250	0.000	12	18.360	18.409	0.588	2.350	A572-65 (65 ksi)
L12	109.250-104.750	4.500	0.000	12	18.409	19.296	0.563	2.250	A572-65 (65 ksi)
L13	104.750-104.500	0.250	0.000	12	19.296	19.346	0.775	3.100	A572-65 (65 ksi)
L14	104.500-102.416	2.084	0.000	12	19.346	19.756	0.762	3.050	A572-65 (65 ksi)
L15	102.416-102.166	0.250	0.000	12	19.756	19.806	0.563	2.250	A572-65 (65 ksi)
L16	102.166-98.750	3.416	0.000	12	19.806	20.479	0.550	2.200	A572-65 (65 ksi)
L17	98.750-98.500	0.250	0.000	12	20.479	20.528	0.838	3.350	A572-65 (65 ksi)
L18	98.500-97.500	1.000	0.000	12	20.528	20.726	0.838	3.350	A572-65 (65 ksi)
L19	97.500-97.250	0.250	0.000	12	20.726	20.775	0.750	3.000	A572-65 (65 ksi)
L20	97.250-92.000	5.250	3.552	12	20.775	21.810	0.738	2.950	A572-65 (65 ksi)
L21	92.000-90.552	5.000	0.000	12	20.735	21.730	0.800	3.200	A572-65 (65 ksi)
L22	90.552-89.250	1.302	0.000	12	21.730	21.989	0.775	3.100	A572-65 (65 ksi)
L23	89.250-89.000	0.250	0.000	12	21.989	22.039	1.000	4.000	A572-65 (65 ksi)
L24	89.000-88.250	0.750	0.000	12	22.039	22.189	0.975	3.900	A572-65 (65 ksi)
L25	88.250-88.000	0.250	0.000	12	22.189	22.238	0.762	3.050	A572-65 (65 ksi)
L26	88.000-87.833	0.167	0.000	12	22.238	22.272	0.762	3.050	A572-65 (65 ksi)
L27	87.833-87.583	0.250	0.000	12	22.272	22.321	0.675	2.700	A572-65 (65 ksi)
L28	87.583-82.583	5.000	0.000	12	22.321	23.317	0.650	2.600	A572-65 (65 ksi)

**tnxTower**

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**Job**  
 79982.012.01 - WATERBURY,CT (BU# 876317)

**Page**  
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**Project**  
**Date**  
 16:40:32 05/09/22

**Client**  
 Crown Castle  
**Designed by**  
 Jayaraj B

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L29	82.583-77.583	5.000	0.000	12	23.317	24.312	0.625	2.500	A572-65 (65 ksi)
L30	77.583-77.000	0.583	0.000	12	24.312	24.428	0.625	2.500	A572-65 (65 ksi)
L31	77.000-76.750	0.250	0.000	12	24.428	24.478	0.825	3.300	A572-65 (65 ksi)
L32	76.750-76.333	0.417	0.000	12	24.478	24.561	0.825	3.300	A572-65 (65 ksi)
L33	76.333-76.083	0.250	0.000	12	24.561	24.611	0.825	3.300	A572-65 (65 ksi)
L34	76.083-74.250	1.833	0.000	12	24.611	24.976	0.800	3.200	A572-65 (65 ksi)
L35	74.250-74.000	0.250	0.000	12	24.976	25.026	0.887	3.550	A572-65 (65 ksi)
L36	74.000-73.750	0.250	0.000	12	25.026	25.076	0.887	3.550	A572-65 (65 ksi)
L37	73.750-73.500	0.250	0.000	12	25.076	25.125	0.912	3.650	A572-65 (65 ksi)
L38	73.500-68.500	5.000	0.000	12	25.125	26.121	0.875	3.500	A572-65 (65 ksi)
L39	68.500-63.500	5.000	0.000	12	26.121	27.116	0.850	3.400	A572-65 (65 ksi)
L40	63.500-60.500	3.000	0.000	12	27.116	27.714	0.825	3.300	A572-65 (65 ksi)
L41	60.500-60.250	0.250	0.000	12	27.714	27.763	0.825	3.300	A572-65 (65 ksi)
L42	60.250-59.500	0.750	0.000	12	27.763	27.913	0.825	3.300	A572-65 (65 ksi)
L43	59.500-59.250	0.250	0.000	12	27.913	27.962	0.887	3.550	A572-65 (65 ksi)
L44	59.250-54.250	5.000	0.000	12	27.962	28.958	0.850	3.400	A572-65 (65 ksi)
L45	54.250-45.802	8.448	4.198	12	28.958	30.640	0.838	3.350	A572-65 (65 ksi)
L46	45.802-44.802	5.198	0.000	12	29.304	30.333	0.838	3.350	A572-65 (65 ksi)
L47	44.802-43.583	1.219	0.000	12	30.333	30.574	0.838	3.350	A572-65 (65 ksi)
L48	43.583-43.333	0.250	0.000	12	30.574	30.624	0.850	3.400	A572-65 (65 ksi)
L49	43.333-43.166	0.167	0.000	12	30.624	30.657	0.850	3.400	A572-65 (65 ksi)
L50	43.166-42.916	0.250	0.000	12	30.657	30.706	0.938	3.750	A572-65 (65 ksi)
L51	42.916-39.000	3.916	0.000	12	30.706	31.481	0.912	3.650	A572-65 (65 ksi)
L52	39.000-38.750	0.250	0.000	12	31.481	31.531	0.950	3.800	A572-65 (65 ksi)
L53	38.750-37.166	1.584	0.000	12	31.531	31.844	0.938	3.750	A572-65 (65 ksi)
L54	37.166-36.916	0.250	0.000	12	31.844	31.894	0.887	3.550	A572-65 (65 ksi)
L55	36.916-34.000	2.916	0.000	12	31.894	32.471	0.887	3.550	A572-65 (65 ksi)
L56	34.000-33.750	0.250	0.000	12	32.471	32.520	0.875	3.500	A572-65 (65 ksi)
L57	33.750-29.750	4.000	0.000	12	32.520	33.312	0.863	3.450	A572-65 (65 ksi)
L58	29.750-29.500	0.250	0.000	12	33.312	33.361	0.863	3.450	A572-65 (65 ksi)
L59	29.500-24.500	5.000	0.000	12	33.361	34.351	0.850	3.400	A572-65

<b>tnxTower</b>  <b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	<b>Job</b>	<b>Page</b>	
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		<b>Designed by</b> Jayaraj B	

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L60	24.500-23.000	1.500	0.000	12	34.351	34.648	0.838	3.350	(65 ksi) A572-65
L61	23.000-22.750	0.250	0.000	12	34.648	34.697	0.963	3.850	(65 ksi) A572-65
L62	22.750-21.583	1.167	0.000	12	34.697	34.928	0.963	3.850	(65 ksi) A572-65
L63	21.583-21.333	0.250	0.000	12	34.928	34.978	0.850	3.400	(65 ksi) A572-65
L64	21.333-16.333	5.000	0.000	12	34.978	35.967	0.838	3.350	(65 ksi) A572-65
L65	16.333-12.917	3.416	0.000	12	35.967	36.644	0.825	3.300	(65 ksi) A572-65
L66	12.917-12.667	0.250	0.000	12	36.644	36.693	0.912	3.650	(65 ksi) A572-65
L67	12.667-12.500	0.167	0.000	12	36.693	36.726	0.912	3.650	(65 ksi) A572-65
L68	12.500-12.250	0.250	0.000	12	36.726	36.776	0.762	3.050	(65 ksi) A572-65
L69	12.250-12.000	0.250	0.000	12	36.776	36.825	0.762	3.050	(65 ksi) A572-65
L70	12.000-11.750	0.250	0.000	12	36.825	36.874	0.662	2.650	(65 ksi) A572-65
L71	11.750-8.500	3.250	0.000	12	36.874	37.518	0.650	2.600	(65 ksi) A572-65
L72	8.500-8.250	0.250	0.000	12	37.518	37.567	0.925	3.700	(65 ksi) A572-65
L73	8.250-7.000	1.250	0.000	12	37.567	37.815	0.912	3.650	(65 ksi) A572-65
L74	7.000-6.750	0.250	0.000	12	37.815	37.864	0.813	3.250	(65 ksi) A572-65
L75	6.750-1.750	5.000	0.000	12	37.864	38.854	0.787	3.150	(65 ksi) A572-65
L76	1.750-0.000	1.750		12	38.854	39.200	0.787	3.150	(65 ksi) A572-65

### Tapered Pole Properties

Section	Tip Dia. in	Area in <sup>2</sup>	I in <sup>4</sup>	r in	C in	I/C in <sup>3</sup>	J in <sup>4</sup>	I/Q in <sup>2</sup>	w in	w/t
L1	12.750	14.579	279.335	4.377	6.375	43.817	558.670	7.285	0.000	0
L2	12.750	14.579	279.335	4.377	6.375	43.817	558.670	7.285	0.000	0
L3	13.480	15.439	331.709	4.635	6.740	49.215	663.419	7.715	0.000	0
L4	13.889	8.025	180.994	4.759	6.983	25.921	366.742	3.950	3.110	16.587
L5	14.910	8.621	224.322	5.112	7.493	29.936	454.538	4.243	3.374	17.996
L6	15.931	9.216	274.067	5.465	8.004	34.242	555.334	4.536	3.639	19.405
L7	16.028	26.097	757.351	5.398	8.089	93.626	1534.598	12.844	2.745	5.106
L8	16.037	25.006	732.852	5.425	8.115	90.312	1484.956	12.307	2.825	5.512
	17.058	26.633	885.390	5.778	8.625	102.651	1794.040	13.108	3.089	6.027

Section	Tip Dia. in	Area in <sup>2</sup>	I in <sup>4</sup>	r in	C in	I/C in <sup>3</sup>	J in <sup>4</sup>	Iu/Q in <sup>2</sup>	w in	w/t
L9	17.067	25.373	846.120	5.787	8.625	98.098	1714.469	12.488	3.156	6.474
	18.087	26.920	1010.566	6.139	9.136	110.615	2047.680	13.249	3.420	7.016
L10	18.092	26.249	986.808	6.144	9.136	108.014	1999.541	12.919	3.454	7.271
	18.840	27.355	1116.814	6.403	9.510	117.432	2262.967	13.463	3.647	7.679
L11	18.800	33.621	1355.419	6.362	9.510	142.521	2746.446	16.547	3.346	5.695
	18.851	33.714	1366.728	6.380	9.536	143.325	2769.361	16.593	3.359	5.718
L12	18.860	32.324	1314.084	6.389	9.536	137.804	2662.690	15.909	3.426	6.091
	19.778	33.931	1519.973	6.707	9.995	152.067	3079.878	16.700	3.664	6.514
L13	19.704	46.220	2023.726	6.631	9.995	202.465	4100.618	22.748	3.094	3.993
	19.755	46.343	2039.927	6.648	10.021	203.566	4133.444	22.808	3.108	4.01
L14	19.759	45.626	2011.080	6.653	10.021	200.687	4074.993	22.456	3.141	4.119
	20.184	46.635	2147.450	6.800	10.234	209.839	4351.315	22.952	3.251	4.264
L15	20.255	34.765	1634.756	6.871	10.234	159.741	3312.459	17.110	3.787	6.733
	20.306	34.854	1647.383	6.889	10.259	160.574	3338.044	17.154	3.800	6.756
L16	20.310	34.102	1613.915	6.894	10.259	157.312	3270.229	16.784	3.834	6.971
	21.008	35.295	1789.255	7.135	10.608	168.667	3625.516	17.371	4.014	7.299
L17	20.906	52.969	2608.327	7.032	10.608	245.878	5285.177	26.070	3.244	3.873
	20.957	53.102	2628.012	7.049	10.634	247.139	5325.066	26.135	3.257	3.889
L18	20.957	53.102	2628.012	7.049	10.634	247.139	5325.066	26.135	3.257	3.889
	21.161	53.633	2707.746	7.120	10.736	252.215	5486.627	26.397	3.310	3.952
L19	21.192	48.241	2456.993	7.151	10.736	228.858	4978.535	23.743	3.544	4.726
	21.243	48.360	2475.226	7.169	10.761	230.010	5015.479	23.801	3.558	4.744
L20	21.248	47.584	2438.533	7.173	10.761	226.600	4941.129	23.419	3.591	4.869
	22.319	50.042	2836.299	7.544	11.298	251.054	5747.111	24.629	3.869	5.246
L21	21.916	51.352	2604.715	7.137	10.741	242.512	5277.858	25.274	3.413	4.266
	22.215	53.916	3014.753	7.493	11.256	267.829	6108.707	26.536	3.680	4.6
L22	22.223	52.294	2931.020	7.502	11.256	260.391	5939.041	25.737	3.747	4.834
	22.492	52.941	3041.147	7.595	11.391	266.989	6162.189	26.056	3.816	4.924
L23	22.412	67.586	3800.525	7.514	11.391	333.657	7700.894	33.264	3.213	3.213
	22.464	67.746	3827.628	7.532	11.416	335.277	7755.811	33.343	3.227	3.227
L24	22.473	66.131	3745.256	7.541	11.416	328.062	7588.905	32.548	3.294	3.378
	22.627	66.600	3825.474	7.594	11.494	332.833	7751.447	32.778	3.334	3.419
L25	22.702	52.606	3082.526	7.671	11.494	268.194	6246.034	25.891	3.903	5.119
	22.754	52.728	3104.059	7.688	11.519	269.463	6289.666	25.951	3.916	5.136
L26	22.754	52.728	3104.059	7.688	11.519	269.463	6289.666	25.951	3.916	5.136
	22.788	52.810	3118.499	7.700	11.537	270.312	6318.925	25.992	3.925	5.148
L27	22.819	46.940	2794.467	7.732	11.537	242.225	5662.348	23.102	4.160	6.163
	22.871	47.048	2813.834	7.749	11.562	243.360	5701.590	23.156	4.173	6.182
L28	22.879	45.358	2719.017	7.758	11.562	235.159	5509.465	22.324	4.240	6.523
	23.910	47.442	3111.201	8.115	12.078	257.590	6304.137	23.349	4.507	6.934
L29	23.919	45.667	3001.449	8.124	12.078	248.503	6081.749	22.476	4.574	7.318
	24.950	47.671	3414.060	8.480	12.594	271.091	6917.811	23.462	4.841	7.745
L30	24.950	47.671	3414.060	8.480	12.594	271.091	6917.811	23.462	4.841	7.745
	25.070	47.904	3464.497	8.522	12.654	273.788	7020.009	23.577	4.872	7.795
L31	24.999	62.702	4458.829	8.450	12.654	352.367	9034.796	30.860	4.336	5.256
	25.051	62.835	4487.097	8.468	12.680	353.880	9092.075	30.925	4.349	5.272
L32	25.051	62.835	4487.097	8.468	12.680	353.880	9092.075	30.925	4.349	5.272
	25.137	63.055	4534.514	8.498	12.723	356.411	9188.154	31.034	4.371	5.299
L33	25.137	63.055	4534.514	8.498	12.723	356.411	9188.154	31.034	4.371	5.299
	25.188	63.188	4563.100	8.515	12.748	357.932	9246.079	31.099	4.385	5.315
L34	25.197	61.337	4438.791	8.524	12.748	348.182	8994.195	30.188	4.452	5.565
	25.575	62.277	4646.037	8.655	12.938	359.113	9414.130	30.651	4.550	5.687
L35	25.544	68.839	5098.436	8.624	12.938	394.081	10330.813	33.880	4.315	4.862
	25.595	68.981	5130.107	8.641	12.963	395.740	10394.987	33.950	4.328	4.877
L36	25.595	68.981	5130.107	8.641	12.963	395.740	10394.987	33.950	4.328	4.877
	25.647	69.123	5161.909	8.659	12.989	397.403	10459.426	34.020	4.342	4.892
L37	25.638	70.997	5290.875	8.650	12.989	407.332	10720.747	34.943	4.275	4.685
	25.690	71.143	5323.640	8.668	13.015	409.042	10787.138	35.015	4.288	4.699
L38	25.703	68.325	5128.616	8.682	13.015	394.057	10391.966	33.628	4.389	5.016
	26.734	71.130	5786.510	9.038	13.531	427.662	11725.038	35.008	4.655	5.32
L39	26.742	69.166	5637.897	9.047	13.531	416.679	11423.908	34.041	4.722	5.556
	27.773	71.891	6330.781	9.403	14.046	450.710	12827.880	35.382	4.989	5.87

Section	Tip Dia. in	Area in <sup>2</sup>	I in <sup>4</sup>	r in	C in	I/C in <sup>3</sup>	J in <sup>4</sup>	Iu/Q in <sup>2</sup>	w in	w/t
L40	27.782	69.843	6162.144	9.412	14.046	438.704	12486.174	34.375	5.056	6.129
	28.400	71.430	6591.746	9.626	14.356	459.174	13356.665	35.155	5.216	6.323
L41	28.400	71.430	6591.746	9.626	14.356	459.174	13356.665	35.155	5.216	6.323
	28.452	71.562	6628.421	9.644	14.381	460.901	13430.979	35.221	5.230	6.339
L42	28.452	71.562	6628.421	9.644	14.381	460.901	13430.979	35.221	5.230	6.339
	28.606	71.958	6739.263	9.697	14.459	466.102	13655.573	35.416	5.270	6.387
L43	28.584	77.231	7199.746	9.675	14.459	497.950	14588.636	38.011	5.102	5.749
	28.636	77.374	7239.601	9.693	14.485	499.815	14669.394	38.081	5.115	5.764
L44	28.649	74.207	6962.552	9.706	14.485	480.688	14108.019	36.522	5.216	6.136
	29.680	76.932	7758.005	10.063	15.000	517.192	15719.821	37.863	5.483	6.45
L45	29.684	75.834	7654.119	10.067	15.000	510.267	15509.321	37.323	5.516	6.587
	31.425	80.370	9111.392	10.669	15.872	574.072	18462.150	39.556	5.967	7.125
L46	30.903	76.767	7940.296	10.191	15.180	523.091	16089.192	37.783	5.609	6.697
	31.108	79.542	8832.656	10.559	15.712	562.143	17897.356	39.148	5.885	7.027
L47	31.108	79.542	8832.656	10.559	15.712	562.143	17897.356	39.148	5.885	7.027
	31.357	80.192	9051.176	10.646	15.837	571.505	18340.137	39.468	5.949	7.104
L48	31.353	81.355	9174.689	10.641	15.837	579.304	18590.407	40.041	5.916	6.96
	31.404	81.491	9220.582	10.659	15.863	581.261	18683.399	40.107	5.929	6.975
L49	31.404	81.491	9220.582	10.659	15.863	581.261	18683.399	40.107	5.929	6.975
	31.438	81.581	9251.324	10.671	15.880	582.570	18745.690	40.152	5.938	6.986
L50	31.407	89.715	10114.068	10.639	15.880	636.899	20493.844	44.155	5.704	6.084
	31.459	89.864	10164.669	10.657	15.906	639.054	20596.375	44.228	5.717	6.098
L51	31.468	87.541	9918.558	10.666	15.906	623.581	20097.688	43.085	5.784	6.338
	32.270	89.819	10712.920	10.944	16.307	656.941	21707.281	44.206	5.991	6.566
L52	32.257	93.395	11112.181	10.930	16.307	681.424	22516.292	45.966	5.891	6.201
	32.308	93.546	11166.294	10.948	16.333	683.668	22625.940	46.041	5.904	6.215
L53	32.312	92.353	11032.888	10.952	16.333	675.500	22355.622	45.453	5.938	6.334
	32.637	93.300	11375.549	11.065	16.495	689.623	23049.947	45.919	6.022	6.423
L54	32.654	88.467	10821.202	11.083	16.495	656.017	21926.690	43.541	6.156	6.936
	32.706	88.608	10873.173	11.100	16.521	658.145	22031.996	43.610	6.169	6.951
L55	32.706	88.608	10873.173	11.100	16.521	658.145	22031.996	43.610	6.169	6.951
	33.303	90.257	11491.698	11.307	16.820	683.221	23285.295	44.422	6.324	7.125
L56	33.308	89.021	11343.300	11.311	16.820	674.398	22984.602	43.814	6.357	7.265
	33.359	89.161	11396.675	11.329	16.846	676.540	23092.753	43.882	6.370	7.281
L57	33.363	87.922	11247.183	11.333	16.846	667.666	22789.841	43.272	6.404	7.425
	34.183	90.120	12112.233	11.617	17.256	701.930	24542.668	44.354	6.616	7.671
L58	34.183	90.120	12112.233	11.617	17.256	701.930	24542.668	44.354	6.616	7.671
	34.234	90.258	12167.724	11.635	17.281	704.100	24655.108	44.422	6.629	7.686
L59	34.238	88.984	12005.222	11.639	17.281	694.697	24325.835	43.795	6.663	7.839
	35.263	91.692	13135.172	11.993	17.794	738.186	26615.419	45.128	6.928	8.151
L60	35.267	90.378	12956.500	11.998	17.794	728.145	26253.381	44.481	6.962	8.312
	35.575	91.178	13303.879	12.104	17.948	741.261	26957.265	44.875	7.041	8.407
L61	35.531	104.400	15120.578	12.059	17.948	842.484	30638.391	51.382	6.706	6.967
	35.582	104.553	15187.306	12.077	17.973	844.995	30773.600	51.458	6.719	6.981
L62	35.582	104.553	15187.306	12.077	17.973	844.995	30773.600	51.458	6.719	6.981
	35.821	105.269	15501.390	12.160	18.093	856.767	31410.019	51.810	6.781	7.046
L63	35.861	93.272	13826.016	12.200	18.093	764.168	28015.257	45.906	7.083	8.333
	35.912	93.408	13886.326	12.218	18.119	766.416	28137.462	45.973	7.096	8.348
L64	35.916	92.068	13697.155	12.222	18.119	755.975	27754.150	45.313	7.130	8.513
	36.941	94.737	14923.079	12.577	18.631	800.976	30238.204	46.626	7.395	8.83
L65	36.945	93.356	14716.044	12.581	18.631	789.863	29818.695	45.947	7.428	9.004
	37.645	95.152	15581.827	12.823	18.981	820.902	31573.006	46.831	7.609	9.224
L66	37.614	104.987	17108.449	12.792	18.981	901.330	34666.355	51.671	7.375	8.082
	37.665	105.132	17179.621	12.809	19.007	903.859	34810.569	51.743	7.388	8.097
L67	37.665	105.132	17179.621	12.809	19.007	903.859	34810.569	51.743	7.388	8.097
	37.700	105.229	17227.273	12.821	19.024	905.550	34907.127	51.791	7.397	8.106
L68	37.753	88.299	14577.031	12.875	19.024	766.241	29537.016	43.458	7.799	10.228
	37.804	88.421	14637.279	12.893	19.050	768.372	29659.097	43.518	7.812	10.246
L69	37.804	88.421	14637.279	12.893	19.050	768.372	29659.097	43.518	7.812	10.246
	37.855	88.542	14697.694	12.910	19.075	770.507	29781.513	43.578	7.826	10.263
L70	37.890	77.144	12876.656	12.946	19.075	675.042	26091.595	37.968	8.094	12.217
	37.942	77.249	12929.583	12.964	19.101	676.907	26198.841	38.020	8.107	12.237

# tnxTower

**B+T Group**  
 1717 S. Boulder, Suite 300  
 Tulsa, OK 74119  
 Phone: (918) 587-4630  
 FAX: (918) 295-0265

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<b>Client</b>	Crown Castle	<b>Designed by</b>	Jayaraj B

Section	Tip Dia. in	Area in <sup>2</sup>	I in <sup>4</sup>	r in	C in	I/C in <sup>3</sup>	J in <sup>4</sup>	It/Q in <sup>2</sup>	w in	w/t
L71	37.946	75.818	12698.770	12.968	19.101	664.823	25731.151	37.315	8.140	12.524
	38.612	77.164	13387.320	13.199	19.434	688.855	27126.339	37.978	8.313	12.789
L72	38.515	108.991	18628.043	13.100	19.434	958.520	37745.466	53.642	7.576	8.19
	38.566	109.139	18703.710	13.118	19.460	961.146	37898.787	53.715	7.589	8.204
L73	38.571	107.701	18469.846	13.122	19.460	949.128	37424.916	53.007	7.623	8.353
	38.827	108.428	18846.355	13.211	19.588	962.140	38187.825	53.365	7.689	8.426
L74	38.862	96.807	16917.794	13.247	19.588	863.684	34280.038	47.645	7.957	9.793
	38.913	96.936	16985.753	13.264	19.614	866.020	34417.740	47.709	7.970	9.809
L75	38.922	94.017	16496.461	13.273	19.614	841.073	33426.303	46.272	8.037	10.206
	39.946	96.526	17852.914	13.628	20.126	887.049	36174.844	47.507	8.302	10.543
L76	39.946	96.526	17852.914	13.628	20.126	887.049	36174.844	47.507	8.302	10.543
	40.305	97.404	18344.678	13.752	20.306	903.430	37171.292	47.940	8.395	10.66

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor A <sub>f</sub>	Adjust. Factor A <sub>r</sub>	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals	Double Angle Stitch Bolt Spacing Horizontals	Double Angle Stitch Bolt Spacing Redundants
ft	ft <sup>2</sup>	in					in	in	in
L1				1	1	1			
144.250-139.2									
50									
L2				1	1	1			
139.250-134.7									
50									
L3				1	1	1			
134.750-134.2									
50									
L4				1	1	1			
134.250-129.2									
50									
L5				1	1	1			
129.250-124.2									
50									
L6				1	1	1			
124.250-123.4									
16									
L7				1	1	0.873259			
123.416-123.1									
66									
L8				1	1	0.880843			
123.166-118.1									
66									
L9				1	1	0.893543			
118.166-113.1									
66									
L10				1	1	0.895307			
113.166-109.5									
00									
L11				1	1	0.905539			
109.500-109.2									
50									
L12				1	1	0.915518			
109.250-104.7									
50									
L13				1	1	0.930283			
104.750-104.5									
00									
L14				1	1	0.929776			
104.500-102.4									
16									
L15				1	1	1.12278			



<p><b>tnxTower</b></p> <p><b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265</p>	<p><b>Job</b></p> <p>79982.012.01 - WATERBURY,CT (BU# 876317)</p>	<p><b>Page</b></p> <p>9 of 95</p>
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	<p><b>Client</b></p> <p>Crown Castle</p>	<p><b>Designed by</b></p> <p>Jayaraj B</p>

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor $A_f$	Adjust. Factor $A_r$	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
ft	ft <sup>2</sup>	in							
L44				1	1	0.936205			
59.250-54.250									
L45				1	1	0.930731			
54.250-45.802									
L46				1	1	0.938065			
45.802-44.802									
L47				1	1	0.933481			
44.802-43.583									
L48				1	1	0.974523			
43.583-43.333									
L49				1	1	0.97385			
43.333-43.166									
L50				1	1	0.934786			
43.166-42.916									
L51				1	1	0.943944			
42.916-39.000									
L52				1	1	0.949681			
39.000-38.750									
L53				1	1	0.955574			
38.750-37.166									
L54				1	1	0.972827			
37.166-36.916									
L55				1	1	0.961485			
36.916-34.000									
L56				1	1	0.928941			
34.000-33.750									
L57				1	1	0.927889			
33.750-29.750									
L58				1	1	0.93743			
29.750-29.500									
L59				1	1	0.933623			
29.500-24.500									
L60				1	1	0.942163			
24.500-23.000									
L61				1	1	0.90832			
23.000-22.750									
L62				1	1	0.904351			
22.750-21.583									
L63				1	1	0.971473			
21.583-21.333									
L64				1	1	0.968358			
21.333-16.333									
L65				1	1	0.971282			
16.333-12.917									
L66				1	1	0.961412			
12.917-12.667									
L67				1	1	0.96084			
12.667-12.500									
L68				1	1	1.00814			
12.500-12.250									
L69				1	1	1.00732			
12.250-12.000									
L70				1	1	1.07745			
12.000-11.750									
L71				1	1	1.08702			
11.750-8.500									
L72				1	1	0.961703			
8.500-8.250									
L73				1	1	0.970307			



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	<b>Client</b>	<b>Designed by</b>	
	Crown Castle	Jayaraj B	

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor $A_f$	Adjust. Factor $A_r$	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
ft	ft <sup>2</sup>	in							
8.250-7.000 L74				1	1	0.961877			
7.000-6.750 L75				1	1	0.976278			
6.750-1.750 L76				1	1	0.971053			
1.750-0.000									

### Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight klf
FB-L98B-034-XXX(3/8)	B	No	Surface Ar (CaAa)	144.000 - 0.000	2	2	0.000 0.030	0.394		0.000
PWRT-608-S(13/16)	B	No	Surface Ar (CaAa)	144.000 - 0.000	6	3	0.000 0.150	0.820		0.001
PWRT-606-S(7/8)	B	No	Surface Ar (CaAa)	144.000 - 0.000	1	1	0.150 0.160	0.920		0.001
RFFT-48SM-001-XXX(3/8) *	B	No	Surface Ar (CaAa)	144.000 - 0.000	1	1	0.160 0.170	0.400		0.000
7983A(ELLIPTICAL)	B	No	Surface Ar (CaAa)	130.000 - 0.000	3	1	-0.380 -0.300	0.573		0.000
CU12PSM9P6XXX(1-1/2)	B	No	Surface Ar (CaAa)	120.000 - 0.000	1	1	-0.100 -0.080	1.600		0.002
MLC HYBRID 6X12 6AWGX6(1-1/2) *	C	No	Surface Ar (CaAa)	100.000 - 0.000	2	2	0.370 0.400	1.530		0.001
Safety Line 3/8 *	B	No	Surface Ar (CaAa)	144.250 - 0.000	1	1	-0.400 -0.370	0.375		0.000
PL1.25x6.875 Reinforcement	A	No	Surface Af (CaAa)	29.750 - 0.000	1	1	0.250 0.250	6.875	16.250	0.000
PL1.25x6.875 Reinforcement	B	No	Surface Af (CaAa)	29.750 - 0.000	1	1	0.250 0.250	6.875	16.250	0.000
PL1.25x6.875 Reinforcement	C	No	Surface Af (CaAa)	29.750 - 9.170	1	1	0.250 0.250	6.875	16.250	0.000
PL1.25x6.875 Reinforcement	C	No	Surface Af (CaAa)	16.420 - 0.000	1	1	0.000 0.000	6.875	16.250	0.000
PL1.25x6.875 Reinforcement ***	C	No	Surface Af (CaAa)	16.420 - 0.000	1	1	0.500 0.500	6.875	16.250	0.000
PL1.25x6.625 Reinforcement	A	No	Surface Af (CaAa)	59.500 - 29.750	1	1	0.250 0.250	6.625	15.750	0.000
PL1.25x6.625 Reinforcement	B	No	Surface Af (CaAa)	59.500 - 29.750	1	1	0.250 0.250	6.625	15.750	0.000
PL1.25x6.625 Reinforcement ***	C	No	Surface Af (CaAa)	59.500 - 29.750	1	1	0.250 0.250	6.625	15.750	0.000
PL1.25x5.5 Reinforcement	A	No	Surface Af (CaAa)	89.250 - 59.500	1	1	0.250 0.250	5.500	13.500	0.000
PL1.25x5.5 Reinforcement	B	No	Surface Af (CaAa)	89.250 - 59.500	1	1	0.250 0.250	5.500	13.500	0.000

**tnxTower**

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 1717 S. Boulder, Suite 300  
 Tulsa, OK 74119  
 Phone: (918) 587-4630  
 FAX: (918) 295-0265

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**Client**

Crown Castle

**Designed by**

Jayaraj B

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight klf
PL1.25x5.5 Reinforcement ***	C	No	Surface Af (CaAa)	89.250 - 59.500	1	1	0.250 0.250	5.500	13.500	0.000
PL1.25x3.625 Reinforcement	A	No	Surface Af (CaAa)	100.000 - 89.250	1	1	0.250 0.250	3.625	9.750	0.000
PL1.25x3.625 Reinforcement	B	No	Surface Af (CaAa)	100.000 - 89.250	1	1	0.250 0.250	3.625	9.750	0.000
PL1.25x3.625 Reinforcement ***	C	No	Surface Af (CaAa)	100.000 - 89.250	1	1	0.250 0.250	3.625	9.750	0.000
PL1x4 Reinforcement	A	No	Surface Af (CaAa)	35.750 - 10.750	1	1	0.000 0.000	4.000	10.000	0.000
PL1x4 Reinforcement	B	No	Surface Af (CaAa)	35.750 - 10.750	1	1	-0.250 -0.250	4.000	10.000	0.000
PL1x4 Reinforcement ***	C	No	Surface Af (CaAa)	40.750 - 10.750	1	1	-0.250 -0.250	4.000	10.000	0.000
PL1x4 Reinforcement	A	No	Surface Af (CaAa)	62.250 - 32.250	1	1	0.500 0.500	4.000	10.000	0.000
PL1x4 Reinforcement	B	No	Surface Af (CaAa)	62.250 - 32.250	1	1	0.500 0.500	4.000	10.000	0.000
PL1x4 Reinforcement ***	C	No	Surface Af (CaAa)	62.250 - 32.250	1	1	0.500 0.500	4.000	10.000	0.000
PL1x4 Reinforcement	A	No	Surface Af (CaAa)	78.750 - 58.750	1	1	-0.250 -0.250	4.000	10.000	0.000
PL1x4 Reinforcement	B	No	Surface Af (CaAa)	78.750 - 58.750	1	1	-0.250 -0.250	4.000	10.000	0.000
PL1x4 Reinforcement ***	C	No	Surface Af (CaAa)	78.750 - 58.750	1	1	-0.250 -0.250	4.000	10.000	0.000
PL1x4 Reinforcement	A	No	Surface Af (CaAa)	106.500 - 86.500	1	1	-0.250 -0.250	4.000	10.000	0.000
PL1x4 Reinforcement	B	No	Surface Af (CaAa)	106.500 - 86.500	1	1	-0.250 -0.250	4.000	10.000	0.000
PL1x4 Reinforcement ***	C	No	Surface Af (CaAa)	106.500 - 86.500	1	1	-0.250 -0.250	4.000	10.000	0.000
Transition Stiffener 1x7	A	No	Surface Af (CaAa)	10.500 - 0.000	1	1	-0.500 -0.500	1.000	16.000	0.000
Transition Stiffener 1x7	B	No	Surface Af (CaAa)	10.500 - 0.000	1	1	-0.250 -0.250	1.000	16.000	0.000
Transition Stiffener 1x7 *	C	No	Surface Af (CaAa)	10.500 - 0.000	1	1	-0.250 -0.250	1.000	16.000	0.000
CCI-SFP-060100	B	No	Surface Af (CaAa)	25.000 - 5.000	1	1	-0.500 -0.500	6.000	14.000	0.000
CCI-SFP-060100 *	C	No	Surface Af (CaAa)	25.000 - 5.000	1	1	0.000 0.000	6.000	14.000	0.000
CCI-SFP-060100 *	C	No	Surface Af (CaAa)	25.000 - 10.000	1	1	-0.250 -0.250	6.000	14.000	0.000
CCI-SFP-045100 *	B	No	Surface Af (CaAa)	35.083 - 20.083	1	1	0.000 0.000	4.500	11.000	0.000
CCI-SFP-045100 *	C	No	Surface Af (CaAa)	35.083 - 25.083	1	1	0.000 0.000	4.500	11.000	0.000
CCI-SFP-045100 *	A	No	Surface Af	45.080 -	1	1	-0.250	4.500	11.000	0.000

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	<b>Client</b> Crown Castle	<b>Designed by</b> Jayaraj B

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight klf
*			(CaAa)	25.083			-0.250			
CCI-SFP-060100	B	No	Surface Af (CaAa)	45.167 - 35.167	1	1	0.000 0.000	6.000	14.000	0.000
CCI-SFP-060100	C	No	Surface Af (CaAa)	45.167 - 35.167	1	1	0.000 0.000	6.000	14.000	0.000
*										
CCI-SFP-045100	A	No	Surface Af (CaAa)	75.250 - 45.250	1	1	0.000 0.000	4.500	11.000	0.000
CCI-SFP-045100	B	No	Surface Af (CaAa)	75.250 - 45.250	1	1	0.000 0.000	4.500	11.000	0.000
*										
CCI-SFP-040075	B	No	Surface Af (CaAa)	75.250 - 45.250	1	1	0.000 0.000	4.000	9.500	0.000
*										
CCI-SFP-040075	B	No	Surface Af (CaAa)	100.330 - 75.330	1	1	0.000 0.000	4.000	9.500	0.000
CCI-SFP-040075	C	No	Surface Af (CaAa)	100.330 - 75.330	1	1	0.000 0.000	4.000	9.500	0.000
*										
CCI-SFP-040075	A	No	Surface Af (CaAa)	90.333 - 75.333	1	1	-0.500 -0.500	4.000	9.500	0.000
*										
CCI-AFP-05012520	C	No	Surface Af (CaAa)	105.330 - 85.330	1	1	0.000 0.000	5.000	12.500	0.000
*										
CCI-AFP-045100	A	No	Surface Af (CaAa)	125.416 - 100.416	1	1	0.000 0.000	4.500	11.000	0.000
CCI-AFP-045100	B	No	Surface Af (CaAa)	125.416 - 100.416	1	1	0.000 0.000	4.500	11.000	0.000
CCI-AFP-045100	C	No	Surface Af (CaAa)	125.416 - 100.416	1	1	0.000 0.000	4.500	11.000	0.000
*										
CCI-AFP-040075	A	No	Surface Af (CaAa)	111.000 - 96.000	1	1	-0.500 -0.500	4.000	9.500	0.000
*										
CCI-AFP-040075	B	No	Surface Af (CaAa)	111.000 - 101.000	1	1	-0.500 -0.500	4.000	9.500	0.000
*										

### Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C <sub>A</sub> A <sub>A</sub> ft <sup>2</sup> /ft	Weight klf
MLC6C-06C-008R-008R(1-1/2)	B	No	No	Inside Pole	130.000 - 0.000	1	No Ice 1/2" Ice 1" Ice	0.000 0.000 0.000	0.002 0.002 0.002
HB114-1-0813U4-M5J(1-1/4)	B	No	No	Inside Pole	130.000 - 0.000	3	No Ice 1/2" Ice 1" Ice	0.000 0.000 0.000	0.001 0.001 0.001
*									
LDF7-50A(1-5/8)	B	No	No	Inside Pole	110.000 - 0.000	6	No Ice 1/2" Ice 1" Ice	0.000 0.000 0.000	0.001 0.001 0.001

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	<b>Project</b>	<b>Date</b> 16:40:32 05/09/22
	<b>Client</b> Crown Castle	<b>Designed by</b> Jayaraj B

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C <sub>A</sub> A <sub>A</sub> ft <sup>2</sup> /ft	Weight klf
HB114-U6S12-XXX-LI(1-1/4)	B	No	No	Inside Pole	110.000 - 0.000	2	No Ice	0.000	0.002
							1/2" Ice	0.000	0.002
							1" Ice	0.000	0.002
LDF4-50A(1/2)	B	No	No	Inside Pole	110.000 - 0.000	1	No Ice	0.000	0.000
							1/2" Ice	0.000	0.000
							1" Ice	0.000	0.000
*									
HB158-21U6S24-xx M_TMO(1-5/8)	C	No	No	Inside Pole	100.000 - 0.000	1	No Ice	0.000	0.003
							1/2" Ice	0.000	0.003
							1" Ice	0.000	0.003
*									
LDF4-50A(1/2)	B	No	No	Inside Pole	50.000 - 0.000	1	No Ice	0.000	0.000
							1/2" Ice	0.000	0.000
							1" Ice	0.000	0.000
*									

### Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A <sub>R</sub> ft <sup>2</sup>	A <sub>F</sub> ft <sup>2</sup>	C <sub>A</sub> A <sub>A</sub> In Face ft <sup>2</sup>	C <sub>A</sub> A <sub>A</sub> Out Face ft <sup>2</sup>	Weight K
L1	144.250-139.250	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	2.357	0.000	0.024
		C	0.000	0.000	0.000	0.000	0.000
L2	139.250-134.750	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	2.224	0.000	0.023
		C	0.000	0.000	0.000	0.000	0.000
L3	134.750-134.250	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.247	0.000	0.003
		C	0.000	0.000	0.000	0.000	0.000
L4	134.250-129.250	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	2.514	0.000	0.029
		C	0.000	0.000	0.000	0.000	0.000
L5	129.250-124.250	A	0.000	0.000	0.875	0.000	0.000
		B	0.000	0.000	3.632	0.000	0.052
		C	0.000	0.000	0.875	0.000	0.000
L6	124.250-123.416	A	0.000	0.000	0.625	0.000	0.000
		B	0.000	0.000	1.085	0.000	0.009
		C	0.000	0.000	0.625	0.000	0.000
L7	123.416-123.166	A	0.000	0.000	0.188	0.000	0.000
		B	0.000	0.000	0.325	0.000	0.003
		C	0.000	0.000	0.188	0.000	0.000
L8	123.166-118.166	A	0.000	0.000	3.750	0.000	0.000
		B	0.000	0.000	6.801	0.000	0.056
		C	0.000	0.000	3.750	0.000	0.000
L9	118.166-113.166	A	0.000	0.000	3.750	0.000	0.000
		B	0.000	0.000	7.308	0.000	0.064
		C	0.000	0.000	3.750	0.000	0.000
L10	113.166-109.500	A	0.000	0.000	3.749	0.000	0.000
		B	0.000	0.000	6.358	0.000	0.051
		C	0.000	0.000	2.749	0.000	0.000
L11	109.500-109.250	A	0.000	0.000	0.354	0.000	0.000
		B	0.000	0.000	0.532	0.000	0.005
		C	0.000	0.000	0.188	0.000	0.000

Tower Section	Tower Elevation ft	Face	$A_R$ ft <sup>2</sup>	$A_F$ ft <sup>2</sup>	$C_{AA}$ In Face ft <sup>2</sup>	$C_{AA}$ Out Face ft <sup>2</sup>	Weight K
L12	109.250-104.750	A	0.000	0.000	7.542	0.000	0.000
		B	0.000	0.000	10.744	0.000	0.095
		C	0.000	0.000	5.025	0.000	0.000
L13	104.750-104.500	A	0.000	0.000	0.521	0.000	0.000
		B	0.000	0.000	0.699	0.000	0.005
		C	0.000	0.000	0.563	0.000	0.000
L14	104.500-102.416	A	0.000	0.000	4.342	0.000	0.000
		B	0.000	0.000	5.825	0.000	0.044
		C	0.000	0.000	4.689	0.000	0.000
L15	102.416-102.166	A	0.000	0.000	0.521	0.000	0.000
		B	0.000	0.000	0.699	0.000	0.005
		C	0.000	0.000	0.563	0.000	0.000
L16	102.166-98.750	A	0.000	0.000	6.622	0.000	0.000
		B	0.000	0.000	8.606	0.000	0.072
		C	0.000	0.000	8.628	0.000	0.005
L17	98.750-98.500	A	0.000	0.000	0.484	0.000	0.000
		B	0.000	0.000	0.662	0.000	0.005
		C	0.000	0.000	0.769	0.000	0.001
L18	98.500-97.500	A	0.000	0.000	1.938	0.000	0.000
		B	0.000	0.000	2.649	0.000	0.021
		C	0.000	0.000	3.077	0.000	0.004
L19	97.500-97.250	A	0.000	0.000	0.484	0.000	0.000
		B	0.000	0.000	0.662	0.000	0.005
		C	0.000	0.000	0.769	0.000	0.001
L20	97.250-92.000	A	0.000	0.000	7.505	0.000	0.000
		B	0.000	0.000	13.907	0.000	0.111
		C	0.000	0.000	16.153	0.000	0.019
L21	92.000-90.552	A	0.000	0.000	1.840	0.000	0.000
		B	0.000	0.000	3.836	0.000	0.031
		C	0.000	0.000	4.455	0.000	0.005
L22	90.552-89.250	A	0.000	0.000	2.377	0.000	0.000
		B	0.000	0.000	3.449	0.000	0.028
		C	0.000	0.000	4.006	0.000	0.005
L23	89.250-89.000	A	0.000	0.000	0.563	0.000	0.000
		B	0.000	0.000	0.740	0.000	0.005
		C	0.000	0.000	0.847	0.000	0.001
L24	89.000-88.250	A	0.000	0.000	1.688	0.000	0.000
		B	0.000	0.000	2.221	0.000	0.016
		C	0.000	0.000	2.542	0.000	0.003
L25	88.250-88.000	A	0.000	0.000	0.563	0.000	0.000
		B	0.000	0.000	0.740	0.000	0.005
		C	0.000	0.000	0.847	0.000	0.001
L26	88.000-87.833	A	0.000	0.000	0.376	0.000	0.000
		B	0.000	0.000	0.495	0.000	0.004
		C	0.000	0.000	0.566	0.000	0.001
L27	87.833-87.583	A	0.000	0.000	0.563	0.000	0.000
		B	0.000	0.000	0.740	0.000	0.005
		C	0.000	0.000	0.847	0.000	0.001
L28	87.583-82.583	A	0.000	0.000	8.639	0.000	0.000
		B	0.000	0.000	12.196	0.000	0.106
		C	0.000	0.000	12.046	0.000	0.018
L29	82.583-77.583	A	0.000	0.000	8.695	0.000	0.000
		B	0.000	0.000	12.252	0.000	0.106
		C	0.000	0.000	10.225	0.000	0.018
L30	77.583-77.000	A	0.000	0.000	1.312	0.000	0.000
		B	0.000	0.000	1.727	0.000	0.012
		C	0.000	0.000	1.490	0.000	0.002
L31	77.000-76.750	A	0.000	0.000	0.563	0.000	0.000
		B	0.000	0.000	0.740	0.000	0.005
		C	0.000	0.000	0.639	0.000	0.001
L32	76.750-76.333	A	0.000	0.000	0.938	0.000	0.000

<b>tnxTower</b>  <b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	<b>Job</b>	79982.012.01 - WATERBURY,CT (BU# 876317)	<b>Page</b>	15 of 95
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	<b>Client</b>	Crown Castle	<b>Designed by</b>	Jayaraj B

Tower Section	Tower Elevation ft	Face	$A_R$ ft <sup>2</sup>	$A_F$ ft <sup>2</sup>	$C_A A_A$ In Face ft <sup>2</sup>	$C_A A_A$ Out Face ft <sup>2</sup>	Weight K
		B	0.000	0.000	1.235	0.000	0.009
		C	0.000	0.000	1.066	0.000	0.002
L33	76.333-76.083	A	0.000	0.000	0.563	0.000	0.000
		B	0.000	0.000	0.740	0.000	0.005
		C	0.000	0.000	0.639	0.000	0.001
L34	76.083-74.250	A	0.000	0.000	4.152	0.000	0.000
		B	0.000	0.000	6.125	0.000	0.039
		C	0.000	0.000	3.965	0.000	0.007
L35	74.250-74.000	A	0.000	0.000	0.583	0.000	0.000
		B	0.000	0.000	0.928	0.000	0.005
		C	0.000	0.000	0.472	0.000	0.001
L36	74.000-73.750	A	0.000	0.000	0.583	0.000	0.000
		B	0.000	0.000	0.928	0.000	0.005
		C	0.000	0.000	0.472	0.000	0.001
L37	73.750-73.500	A	0.000	0.000	0.583	0.000	0.000
		B	0.000	0.000	0.928	0.000	0.005
		C	0.000	0.000	0.472	0.000	0.001
L38	73.500-68.500	A	0.000	0.000	11.667	0.000	0.000
		B	0.000	0.000	18.558	0.000	0.106
		C	0.000	0.000	9.447	0.000	0.018
L39	68.500-63.500	A	0.000	0.000	11.667	0.000	0.000
		B	0.000	0.000	18.558	0.000	0.106
		C	0.000	0.000	9.447	0.000	0.018
L40	63.500-60.500	A	0.000	0.000	8.167	0.000	0.000
		B	0.000	0.000	12.301	0.000	0.064
		C	0.000	0.000	6.835	0.000	0.011
L41	60.500-60.250	A	0.000	0.000	0.750	0.000	0.000
		B	0.000	0.000	1.095	0.000	0.005
		C	0.000	0.000	0.639	0.000	0.001
L42	60.250-59.500	A	0.000	0.000	2.250	0.000	0.000
		B	0.000	0.000	3.284	0.000	0.016
		C	0.000	0.000	1.917	0.000	0.003
L43	59.500-59.250	A	0.000	0.000	0.797	0.000	0.000
		B	0.000	0.000	1.141	0.000	0.005
		C	0.000	0.000	0.686	0.000	0.001
L44	59.250-54.250	A	0.000	0.000	12.938	0.000	0.000
		B	0.000	0.000	19.829	0.000	0.106
		C	0.000	0.000	10.717	0.000	0.018
L45	54.250-45.802	A	0.000	0.000	21.296	0.000	0.000
		B	0.000	0.000	32.939	0.000	0.180
		C	0.000	0.000	17.545	0.000	0.031
L46	45.802-44.802	A	0.000	0.000	2.393	0.000	0.000
		B	0.000	0.000	3.597	0.000	0.021
		C	0.000	0.000	2.410	0.000	0.004
L47	44.802-43.583	A	0.000	0.000	3.073	0.000	0.000
		B	0.000	0.000	4.138	0.000	0.026
		C	0.000	0.000	3.644	0.000	0.004
L48	43.583-43.333	A	0.000	0.000	0.630	0.000	0.000
		B	0.000	0.000	0.849	0.000	0.005
		C	0.000	0.000	0.747	0.000	0.001
L49	43.333-43.166	A	0.000	0.000	0.421	0.000	0.000
		B	0.000	0.000	0.567	0.000	0.004
		C	0.000	0.000	0.499	0.000	0.001
L50	43.166-42.916	A	0.000	0.000	0.630	0.000	0.000
		B	0.000	0.000	0.849	0.000	0.005
		C	0.000	0.000	0.747	0.000	0.001
L51	42.916-39.000	A	0.000	0.000	9.872	0.000	0.000
		B	0.000	0.000	13.293	0.000	0.084
		C	0.000	0.000	12.871	0.000	0.014
L52	39.000-38.750	A	0.000	0.000	0.630	0.000	0.000
		B	0.000	0.000	0.849	0.000	0.005

Tower Section	Tower Elevation ft	Face	A <sub>R</sub> ft <sup>2</sup>	A <sub>F</sub> ft <sup>2</sup>	C <sub>A</sub> A <sub>A</sub> In Face ft <sup>2</sup>	C <sub>A</sub> A <sub>A</sub> Out Face ft <sup>2</sup>	Weight K
L53	38.750-37.166	C	0.000	0.000	0.914	0.000	0.001
		A	0.000	0.000	3.993	0.000	0.000
		B	0.000	0.000	5.377	0.000	0.034
L54	37.166-36.916	C	0.000	0.000	5.791	0.000	0.006
		A	0.000	0.000	0.630	0.000	0.000
		B	0.000	0.000	0.849	0.000	0.005
L55	36.916-34.000	C	0.000	0.000	0.914	0.000	0.001
		A	0.000	0.000	8.517	0.000	0.000
		B	0.000	0.000	10.813	0.000	0.062
L56	34.000-33.750	C	0.000	0.000	10.408	0.000	0.011
		A	0.000	0.000	0.797	0.000	0.000
		B	0.000	0.000	0.975	0.000	0.005
L57	33.750-29.750	C	0.000	0.000	0.873	0.000	0.001
		A	0.000	0.000	11.083	0.000	0.000
		B	0.000	0.000	13.929	0.000	0.085
L58	29.750-29.500	C	0.000	0.000	12.307	0.000	0.015
		A	0.000	0.000	0.641	0.000	0.000
		B	0.000	0.000	0.819	0.000	0.005
L59	29.500-24.500	C	0.000	0.000	0.717	0.000	0.001
		A	0.000	0.000	12.375	0.000	0.000
		B	0.000	0.000	16.870	0.000	0.107
L60	24.500-23.000	C	0.000	0.000	14.905	0.000	0.018
		A	0.000	0.000	2.719	0.000	0.000
		B	0.000	0.000	6.411	0.000	0.032
L61	23.000-22.750	C	0.000	0.000	6.178	0.000	0.006
		A	0.000	0.000	0.453	0.000	0.000
		B	0.000	0.000	1.069	0.000	0.005
L62	22.750-21.583	C	0.000	0.000	1.030	0.000	0.001
		A	0.000	0.000	2.115	0.000	0.000
		B	0.000	0.000	4.988	0.000	0.025
L63	21.583-21.333	C	0.000	0.000	4.806	0.000	0.004
		A	0.000	0.000	0.453	0.000	0.000
		B	0.000	0.000	1.069	0.000	0.005
L64	21.333-16.333	C	0.000	0.000	1.030	0.000	0.001
		A	0.000	0.000	9.063	0.000	0.000
		B	0.000	0.000	18.558	0.000	0.107
L65	16.333-12.917	C	0.000	0.000	20.792	0.000	0.018
		A	0.000	0.000	6.191	0.000	0.000
		B	0.000	0.000	12.038	0.000	0.073
L66	12.917-12.667	C	0.000	0.000	21.897	0.000	0.013
		A	0.000	0.000	0.453	0.000	0.000
		B	0.000	0.000	0.881	0.000	0.005
L67	12.667-12.500	C	0.000	0.000	1.603	0.000	0.001
		A	0.000	0.000	0.303	0.000	0.000
		B	0.000	0.000	0.589	0.000	0.004
L68	12.500-12.250	C	0.000	0.000	1.070	0.000	0.001
		A	0.000	0.000	0.453	0.000	0.000
		B	0.000	0.000	0.881	0.000	0.005
L69	12.250-12.000	C	0.000	0.000	1.603	0.000	0.001
		A	0.000	0.000	0.453	0.000	0.000
		B	0.000	0.000	0.881	0.000	0.005
L70	12.000-11.750	C	0.000	0.000	1.603	0.000	0.001
		A	0.000	0.000	0.453	0.000	0.000
		B	0.000	0.000	0.881	0.000	0.005
L71	11.750-8.500	C	0.000	0.000	1.603	0.000	0.001
		A	0.000	0.000	4.684	0.000	0.000
		B	0.000	0.000	10.247	0.000	0.069
L72	8.500-8.250	C	0.000	0.000	17.359	0.000	0.012
		A	0.000	0.000	0.323	0.000	0.000
		B	0.000	0.000	0.751	0.000	0.005
		C	0.000	0.000	0.936	0.000	0.001

<b>tnxTower</b>  <b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	<b>Job</b>	<b>Page</b>	
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	<b>Project</b>		<b>Date</b>
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	<b>Client</b>	<b>Designed by</b>	
	Crown Castle	Jayaraj B	

Tower Section	Tower Elevation ft	Face	$A_R$ ft <sup>2</sup>	$A_F$ ft <sup>2</sup>	$C_{AA}$ In Face ft <sup>2</sup>	$C_{AA}$ Out Face ft <sup>2</sup>	Weight K
L73	8.250-7.000	A	0.000	0.000	1.616	0.000	0.000
		B	0.000	0.000	3.755	0.000	0.027
		C	0.000	0.000	4.680	0.000	0.005
L74	7.000-6.750	A	0.000	0.000	0.323	0.000	0.000
		B	0.000	0.000	0.751	0.000	0.005
		C	0.000	0.000	0.936	0.000	0.001
L75	6.750-1.750	A	0.000	0.000	6.463	0.000	0.000
		B	0.000	0.000	11.770	0.000	0.107
		C	0.000	0.000	15.472	0.000	0.018
L76	1.750-0.000	A	0.000	0.000	2.262	0.000	0.000
		B	0.000	0.000	3.507	0.000	0.037
		C	0.000	0.000	4.803	0.000	0.006

### Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	$A_R$ ft <sup>2</sup>	$A_F$ ft <sup>2</sup>	$C_{AA}$ In Face ft <sup>2</sup>	$C_{AA}$ Out Face ft <sup>2</sup>	Weight K
L1	144.250-139.250	A	0.983	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	7.930	0.000	0.081
		C		0.000	0.000	0.000	0.000	0.000
L2	139.250-134.750	A	0.980	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	7.441	0.000	0.076
		C		0.000	0.000	0.000	0.000	0.000
L3	134.750-134.250	A	0.978	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	0.826	0.000	0.008
		C		0.000	0.000	0.000	0.000	0.000
L4	134.250-129.250	A	0.976	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	8.436	0.000	0.092
		C		0.000	0.000	0.000	0.000	0.000
L5	129.250-124.250	A	0.972	0.000	0.000	1.101	0.000	0.006
		B		0.000	0.000	10.586	0.000	0.144
		C		0.000	0.000	1.101	0.000	0.006
L6	124.250-123.416	A	0.970	0.000	0.000	0.787	0.000	0.005
		B		0.000	0.000	2.367	0.000	0.028
		C		0.000	0.000	0.787	0.000	0.005
L7	123.416-123.166	A	0.970	0.000	0.000	0.236	0.000	0.001
		B		0.000	0.000	0.709	0.000	0.008
		C		0.000	0.000	0.236	0.000	0.001
L8	123.166-118.166	A	0.968	0.000	0.000	4.718	0.000	0.028
		B		0.000	0.000	14.819	0.000	0.175
		C		0.000	0.000	4.718	0.000	0.028
L9	118.166-113.166	A	0.964	0.000	0.000	4.714	0.000	0.027
		B		0.000	0.000	15.904	0.000	0.191
		C		0.000	0.000	4.714	0.000	0.027
L10	113.166-109.500	A	0.960	0.000	0.000	4.741	0.000	0.027
		B		0.000	0.000	12.862	0.000	0.151
		C		0.000	0.000	3.453	0.000	0.020
L11	109.500-109.250	A	0.958	0.000	0.000	0.450	0.000	0.003
		B		0.000	0.000	0.997	0.000	0.013
		C		0.000	0.000	0.235	0.000	0.001
L12	109.250-104.750	A	0.956	0.000	0.000	9.597	0.000	0.055
		B		0.000	0.000	19.429	0.000	0.239
		C		0.000	0.000	6.331	0.000	0.037
L13	104.750-104.500	A	0.954	0.000	0.000	0.664	0.000	0.004
		B		0.000	0.000	1.209	0.000	0.014
		C		0.000	0.000	0.706	0.000	0.004
L14	104.500-102.416	A	0.953	0.000	0.000	5.533	0.000	0.032



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	<p><b>Project</b></p>	<p><b>Date</b></p> <p>16:40:32 05/09/22</p>
	<p><b>Client</b></p> <p>Crown Castle</p>	<p><b>Designed by</b></p> <p>Jayaraj B</p>

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A <sub>R</sub> ft <sup>2</sup>	A <sub>F</sub> ft <sup>2</sup>	C <sub>A</sub> A <sub>A</sub> In Face ft <sup>2</sup>	C <sub>A</sub> A <sub>A</sub> Out Face ft <sup>2</sup>	Weight K
		B		0.000	0.000	10.077	0.000	0.117
		C		0.000	0.000	5.880	0.000	0.034
L15	102.416-102.166	A	0.952	0.000	0.000	0.664	0.000	0.004
		B		0.000	0.000	1.208	0.000	0.014
		C		0.000	0.000	0.705	0.000	0.004
L16	102.166-98.750	A	0.950	0.000	0.000	8.481	0.000	0.049
		B		0.000	0.000	15.435	0.000	0.185
		C		0.000	0.000	11.179	0.000	0.071
L17	98.750-98.500	A	0.948	0.000	0.000	0.625	0.000	0.004
		B		0.000	0.000	1.179	0.000	0.014
		C		0.000	0.000	1.035	0.000	0.007
L18	98.500-97.500	A	0.948	0.000	0.000	2.499	0.000	0.015
		B		0.000	0.000	4.713	0.000	0.055
		C		0.000	0.000	4.141	0.000	0.029
L19	97.500-97.250	A	0.947	0.000	0.000	0.625	0.000	0.004
		B		0.000	0.000	1.178	0.000	0.014
		C		0.000	0.000	1.035	0.000	0.007
L20	97.250-92.000	A	0.944	0.000	0.000	9.685	0.000	0.058
		B		0.000	0.000	24.707	0.000	0.290
		C		0.000	0.000	21.722	0.000	0.149
L21	92.000-90.552	A	0.941	0.000	0.000	2.377	0.000	0.014
		B		0.000	0.000	6.814	0.000	0.080
		C		0.000	0.000	5.991	0.000	0.041
L22	90.552-89.250	A	0.940	0.000	0.000	3.060	0.000	0.018
		B		0.000	0.000	6.114	0.000	0.072
		C		0.000	0.000	5.381	0.000	0.037
L23	89.250-89.000	A	0.939	0.000	0.000	0.703	0.000	0.004
		B		0.000	0.000	1.254	0.000	0.014
		C		0.000	0.000	1.113	0.000	0.007
L24	89.000-88.250	A	0.938	0.000	0.000	2.110	0.000	0.012
		B		0.000	0.000	3.760	0.000	0.042
		C		0.000	0.000	3.338	0.000	0.022
L25	88.250-88.000	A	0.938	0.000	0.000	0.703	0.000	0.004
		B		0.000	0.000	1.253	0.000	0.014
		C		0.000	0.000	1.113	0.000	0.007
L26	88.000-87.833	A	0.938	0.000	0.000	0.470	0.000	0.003
		B		0.000	0.000	0.837	0.000	0.009
		C		0.000	0.000	0.743	0.000	0.005
L27	87.833-87.583	A	0.937	0.000	0.000	0.703	0.000	0.004
		B		0.000	0.000	1.253	0.000	0.014
		C		0.000	0.000	1.112	0.000	0.007
L28	87.583-82.583	A	0.934	0.000	0.000	10.710	0.000	0.060
		B		0.000	0.000	21.682	0.000	0.261
		C		0.000	0.000	16.089	0.000	0.112
L29	82.583-77.583	A	0.929	0.000	0.000	10.769	0.000	0.060
		B		0.000	0.000	21.698	0.000	0.260
		C		0.000	0.000	13.842	0.000	0.099
L30	77.583-77.000	A	0.926	0.000	0.000	1.635	0.000	0.009
		B		0.000	0.000	2.907	0.000	0.032
		C		0.000	0.000	1.993	0.000	0.014
L31	77.000-76.750	A	0.925	0.000	0.000	0.701	0.000	0.004
		B		0.000	0.000	1.246	0.000	0.014
		C		0.000	0.000	0.855	0.000	0.006
L32	76.750-76.333	A	0.925	0.000	0.000	1.170	0.000	0.007
		B		0.000	0.000	2.078	0.000	0.023
		C		0.000	0.000	1.425	0.000	0.010
L33	76.333-76.083	A	0.924	0.000	0.000	0.701	0.000	0.004
		B		0.000	0.000	1.246	0.000	0.014
		C		0.000	0.000	0.855	0.000	0.006
L34	76.083-74.250	A	0.923	0.000	0.000	5.152	0.000	0.029
		B		0.000	0.000	9.996	0.000	0.107

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	<p><b>Project</b></p>	<p><b>Date</b></p> <p>16:40:32 05/09/22</p>
	<p><b>Client</b></p> <p>Crown Castle</p>	<p><b>Designed by</b></p> <p>Jayaraj B</p>

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	$A_R$ ft <sup>2</sup>	$A_F$ ft <sup>2</sup>	$C_{AA}$ In Face ft <sup>2</sup>	$C_{AA}$ Out Face ft <sup>2</sup>	Weight K
L35	74.250-74.000	C	0.922	0.000	0.000	5.344	0.000	0.038
		A		0.000	0.000	0.722	0.000	0.004
		B		0.000	0.000	1.478	0.000	0.015
L36	74.000-73.750	C	0.921	0.000	0.000	0.641	0.000	0.005
		A		0.000	0.000	0.722	0.000	0.004
		B		0.000	0.000	1.478	0.000	0.015
L37	73.750-73.500	C	0.921	0.000	0.000	0.641	0.000	0.005
		A		0.000	0.000	0.721	0.000	0.004
		B		0.000	0.000	1.478	0.000	0.015
L38	73.500-68.500	C	0.918	0.000	0.000	0.641	0.000	0.005
		A		0.000	0.000	14.420	0.000	0.080
		B		0.000	0.000	29.517	0.000	0.302
L39	68.500-63.500	C	0.911	0.000	0.000	12.812	0.000	0.093
		A		0.000	0.000	14.400	0.000	0.079
		B		0.000	0.000	29.440	0.000	0.300
L40	63.500-60.500	C	0.905	0.000	0.000	12.790	0.000	0.092
		A		0.000	0.000	10.113	0.000	0.056
		B		0.000	0.000	19.108	0.000	0.187
L41	60.500-60.250	C	0.903	0.000	0.000	9.146	0.000	0.063
		A		0.000	0.000	0.931	0.000	0.005
		B		0.000	0.000	1.679	0.000	0.016
L42	60.250-59.500	C	0.902	0.000	0.000	0.850	0.000	0.006
		A		0.000	0.000	2.791	0.000	0.015
		B		0.000	0.000	5.036	0.000	0.048
L43	59.500-59.250	C	0.901	0.000	0.000	2.550	0.000	0.017
		A		0.000	0.000	0.977	0.000	0.005
		B		0.000	0.000	1.725	0.000	0.016
L44	59.250-54.250	C	0.897	0.000	0.000	0.897	0.000	0.006
		A		0.000	0.000	15.719	0.000	0.084
		B		0.000	0.000	30.644	0.000	0.303
L45	54.250-45.802	C	0.886	0.000	0.000	14.106	0.000	0.097
		A		0.000	0.000	25.787	0.000	0.136
		B		0.000	0.000	50.841	0.000	0.502
L46	45.802-44.802	C	0.877	0.000	0.000	23.057	0.000	0.158
		A		0.000	0.000	2.895	0.000	0.015
		B		0.000	0.000	5.593	0.000	0.058
L47	44.802-43.583	C	0.875	0.000	0.000	3.097	0.000	0.021
		A		0.000	0.000	3.713	0.000	0.019
		B		0.000	0.000	6.379	0.000	0.068
L48	43.583-43.333	C	0.874	0.000	0.000	4.545	0.000	0.030
		A		0.000	0.000	0.761	0.000	0.004
		B		0.000	0.000	1.307	0.000	0.014
L49	43.333-43.166	C	0.873	0.000	0.000	0.932	0.000	0.006
		A		0.000	0.000	0.508	0.000	0.003
		B		0.000	0.000	0.873	0.000	0.009
L50	43.166-42.916	C	0.873	0.000	0.000	0.622	0.000	0.004
		A		0.000	0.000	0.761	0.000	0.004
		B		0.000	0.000	1.307	0.000	0.014
L51	42.916-39.000	C	0.869	0.000	0.000	0.932	0.000	0.006
		A		0.000	0.000	11.912	0.000	0.062
		B		0.000	0.000	20.439	0.000	0.216
L52	39.000-38.750	C	0.864	0.000	0.000	16.052	0.000	0.103
		A		0.000	0.000	0.760	0.000	0.004
		B		0.000	0.000	1.303	0.000	0.014
L53	38.750-37.166	C	0.862	0.000	0.000	1.140	0.000	0.007
		A		0.000	0.000	4.812	0.000	0.025
		B		0.000	0.000	8.247	0.000	0.087
L54	37.166-36.916	C	0.860	0.000	0.000	7.219	0.000	0.045
		A		0.000	0.000	0.759	0.000	0.004
		B		0.000	0.000	1.300	0.000	0.014
		C		0.000	0.000	1.139	0.000	0.007

<b>Job</b>	79982.012.01 - WATERBURY,CT (BU# 876317)	<b>Page</b>	20 of 95
<b>Project</b>		<b>Date</b>	16:40:32 05/09/22
<b>Client</b>	Crown Castle	<b>Designed by</b>	Jayaraj B

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A <sub>R</sub> ft <sup>2</sup>	A <sub>F</sub> ft <sup>2</sup>	C <sub>A</sub> A <sub>A</sub> In Face ft <sup>2</sup>	C <sub>A</sub> A <sub>A</sub> Out Face ft <sup>2</sup>	Weight K
L55	36.916-34.000	A	0.856	0.000	0.000	10.315	0.000	0.053
		B		0.000	0.000	16.439	0.000	0.165
		C		0.000	0.000	13.026	0.000	0.081
L56	34.000-33.750	A	0.852	0.000	0.000	0.967	0.000	0.005
		B		0.000	0.000	1.485	0.000	0.014
		C		0.000	0.000	1.099	0.000	0.007
L57	33.750-29.750	A	0.847	0.000	0.000	13.369	0.000	0.068
		B		0.000	0.000	21.621	0.000	0.219
		C		0.000	0.000	15.480	0.000	0.097
L58	29.750-29.500	A	0.841	0.000	0.000	0.767	0.000	0.004
		B		0.000	0.000	1.280	0.000	0.013
		C		0.000	0.000	0.898	0.000	0.006
L59	29.500-24.500	A	0.833	0.000	0.000	14.777	0.000	0.073
		B		0.000	0.000	26.107	0.000	0.266
		C		0.000	0.000	18.607	0.000	0.115
L60	24.500-23.000	A	0.822	0.000	0.000	3.212	0.000	0.016
		B		0.000	0.000	9.370	0.000	0.086
		C		0.000	0.000	7.581	0.000	0.043
L61	23.000-22.750	A	0.819	0.000	0.000	0.535	0.000	0.003
		B		0.000	0.000	1.560	0.000	0.014
		C		0.000	0.000	1.263	0.000	0.007
L62	22.750-21.583	A	0.817	0.000	0.000	2.496	0.000	0.012
		B		0.000	0.000	7.275	0.000	0.067
		C		0.000	0.000	5.891	0.000	0.033
L63	21.583-21.333	A	0.814	0.000	0.000	0.535	0.000	0.003
		B		0.000	0.000	1.557	0.000	0.014
		C		0.000	0.000	1.261	0.000	0.007
L64	21.333-16.333	A	0.804	0.000	0.000	10.670	0.000	0.051
		B		0.000	0.000	27.602	0.000	0.266
		C		0.000	0.000	25.398	0.000	0.140
L65	16.333-12.917	A	0.784	0.000	0.000	7.262	0.000	0.033
		B		0.000	0.000	17.936	0.000	0.174
		C		0.000	0.000	25.947	0.000	0.133
L66	12.917-12.667	A	0.773	0.000	0.000	0.530	0.000	0.002
		B		0.000	0.000	1.307	0.000	0.013
		C		0.000	0.000	1.896	0.000	0.010
L67	12.667-12.500	A	0.772	0.000	0.000	0.354	0.000	0.002
		B		0.000	0.000	0.873	0.000	0.008
		C		0.000	0.000	1.266	0.000	0.006
L68	12.500-12.250	A	0.771	0.000	0.000	0.530	0.000	0.002
		B		0.000	0.000	1.306	0.000	0.013
		C		0.000	0.000	1.895	0.000	0.010
L69	12.250-12.000	A	0.769	0.000	0.000	0.530	0.000	0.002
		B		0.000	0.000	1.305	0.000	0.013
		C		0.000	0.000	1.894	0.000	0.010
L70	12.000-11.750	A	0.767	0.000	0.000	0.530	0.000	0.002
		B		0.000	0.000	1.304	0.000	0.013
		C		0.000	0.000	1.894	0.000	0.010
L71	11.750-8.500	A	0.755	0.000	0.000	5.560	0.000	0.033
		B		0.000	0.000	15.559	0.000	0.164
		C		0.000	0.000	20.669	0.000	0.113
L72	8.500-8.250	A	0.741	0.000	0.000	0.389	0.000	0.003
		B		0.000	0.000	1.152	0.000	0.013
		C		0.000	0.000	1.138	0.000	0.007
L73	8.250-7.000	A	0.734	0.000	0.000	1.941	0.000	0.013
		B		0.000	0.000	5.742	0.000	0.063
		C		0.000	0.000	5.681	0.000	0.035
L74	7.000-6.750	A	0.727	0.000	0.000	0.388	0.000	0.003
		B		0.000	0.000	1.145	0.000	0.012
		C		0.000	0.000	1.135	0.000	0.007
L75	6.750-1.750	A	0.692	0.000	0.000	7.693	0.000	0.050

<b>tnxTower</b>  <b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	<b>Job</b>	79982.012.01 - WATERBURY,CT (BU# 876317)	<b>Page</b>	21 of 95
	<b>Project</b>		<b>Date</b>	16:40:32 05/09/22
	<b>Client</b>	Crown Castle		<b>Designed by</b>

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	$A_R$ ft <sup>2</sup>	$A_F$ ft <sup>2</sup>	$C_A A_A$ In Face ft <sup>2</sup>	$C_A A_A$ Out Face ft <sup>2</sup>	Weight K
L76	1.750-0.000	B		0.000	0.000	18.841	0.000	0.227
		C		0.000	0.000	18.851	0.000	0.117
		A	0.591	0.000	0.000	2.631	0.000	0.015
		B		0.000	0.000	5.570	0.000	0.070
		C		0.000	0.000	5.765	0.000	0.033

### Feed Line Center of Pressure

Section	Elevation ft	$CP_X$ in	$CP_Z$ in	$CP_X$ Ice in	$CP_Z$ Ice in
L1	144.250-139.250	2.344	-1.002	2.476	-1.225
L2	139.250-134.750	2.389	-1.012	2.528	-1.233
L3	134.750-134.250	2.465	-1.044	2.612	-1.274
L4	134.250-129.250	1.823	-0.803	2.637	-1.347
L5	129.250-124.250	1.498	-0.792	2.371	-1.491
L6	124.250-123.416	0.905	-0.478	1.690	-1.063
L7	123.416-123.166	0.910	-0.481	1.701	-1.070
L8	123.166-118.166	1.012	-0.566	1.830	-1.179
L9	118.166-113.166	1.191	-0.715	2.055	-1.368
L10	113.166-109.500	0.412	-0.490	1.437	-1.148
L11	109.500-109.250	-0.497	-0.219	0.643	-0.848
L12	109.250-104.750	-0.435	-0.031	0.582	-0.643
L13	104.750-104.500	-0.336	0.793	0.479	0.167
L14	104.500-102.416	-0.340	0.801	0.483	0.169
L15	102.416-102.166	-0.349	0.821	0.487	0.171
L16	102.166-98.750	0.352	1.624	1.034	0.883
L17	98.750-98.500	0.745	2.115	1.218	1.381
L18	98.500-97.500	0.749	2.124	1.224	1.389
L19	97.500-97.250	0.752	2.133	1.229	1.395
L20	97.250-92.000	1.039	1.486	1.509	0.808
L21	92.000-90.552	1.140	1.274	1.609	0.615
L22	90.552-89.250	0.840	2.070	1.335	1.327
L23	89.250-89.000	0.715	2.028	1.205	1.376
L24	89.000-88.250	0.719	2.038	1.211	1.382
L25	88.250-88.000	0.723	2.050	1.217	1.390
L26	88.000-87.833	0.724	2.053	1.219	1.393
L27	87.833-87.583	0.725	2.055	1.221	1.395
L28	87.583-82.583	0.922	1.980	1.483	1.185
L29	82.583-77.583	0.993	1.583	1.581	0.828
L30	77.583-77.000	0.842	1.342	1.397	0.735
L31	77.000-76.750	0.845	1.347	1.401	0.737
L32	76.750-76.333	0.847	1.350	1.404	0.739
L33	76.333-76.083	0.849	1.353	1.407	0.741
L34	76.083-74.250	1.011	-0.289	1.554	-0.686
L35	74.250-74.000	1.161	-1.515	1.685	-1.752
L36	74.000-73.750	1.163	-1.518	1.687	-1.755
L37	73.750-73.500	1.165	-1.520	1.690	-1.758
L38	73.500-68.500	1.185	-1.546	1.716	-1.785
L39	68.500-63.500	1.223	-1.596	1.765	-1.838
L40	63.500-60.500	1.128	-1.472	1.644	-1.713
L41	60.500-60.250	1.063	-1.388	1.561	-1.626
L42	60.250-59.500	1.067	-1.392	1.565	-1.631
L43	59.500-59.250	1.024	-1.337	1.521	-1.585
L44	59.250-54.250	1.228	-1.603	1.760	-1.835
L45	54.250-45.802	1.301	-1.698	1.847	-1.928
L46	45.802-44.802	1.069	-0.655	1.634	-1.078

<b>tnxTower</b>  <b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	<b>Job</b> 79982.012.01 - WATERBURY,CT (BU# 876317)	<b>Page</b> 22 of 95
	<b>Project</b>	<b>Date</b> 16:40:32 05/09/22
	<b>Client</b> Crown Castle	<b>Designed by</b> Jayaraj B

Section	Elevation	CP <sub>x</sub>	CP <sub>z</sub>	CP <sub>x</sub>	CP <sub>z</sub>
	ft	in	in	Ice in	Ice in
L47	44.802-43.583	0.535	0.922	1.095	0.284
L48	43.583-43.333	0.537	0.925	1.099	0.286
L49	43.333-43.166	0.538	0.926	1.100	0.287
L50	43.166-42.916	0.538	0.927	1.101	0.287
L51	42.916-39.000	0.898	1.164	1.419	0.513
L52	39.000-38.750	1.323	1.441	1.794	0.779
L53	38.750-37.166	1.329	1.448	1.801	0.783
L54	37.166-36.916	1.335	1.455	1.808	0.788
L55	36.916-34.000	0.786	0.523	1.322	-0.036
L56	34.000-33.750	0.430	-0.064	1.036	-0.562
L57	33.750-29.750	0.479	-0.071	1.139	-0.616
L58	29.750-29.500	0.510	-0.076	1.204	-0.650
L59	29.500-24.500	0.636	-0.178	1.310	-0.732
L60	24.500-23.000	1.427	-0.741	1.941	-1.154
L61	23.000-22.750	1.432	-0.744	1.947	-1.157
L62	22.750-21.583	1.436	-0.746	1.952	-1.160
L63	21.583-21.333	1.440	-0.748	1.956	-1.162
L64	21.333-16.333	0.767	-0.360	1.392	-0.840
L65	16.333-12.917	-1.474	0.756	-0.568	0.158
L66	12.917-12.667	-1.486	0.761	-0.581	0.165
L67	12.667-12.500	-1.487	0.762	-0.583	0.166
L68	12.500-12.250	-1.488	0.762	-0.585	0.167
L69	12.250-12.000	-1.489	0.763	-0.587	0.168
L70	12.000-11.750	-1.491	0.763	-0.589	0.169
L71	11.750-8.500	-1.958	0.995	-0.902	0.426
L72	8.500-8.250	-1.660	0.076	-0.539	-0.351
L73	8.250-7.000	-1.665	0.076	-0.549	-0.348
L74	7.000-6.750	-1.670	0.076	-0.560	-0.345
L75	6.750-1.750	-0.713	0.086	0.345	-0.364
L76	1.750-0.000	-0.091	0.092	0.828	-0.327

Note: For pole sections, center of pressure calculations do not consider feed line shielding.

### Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L1	2	FB-L98B-034-XXX(3/8)	139.25 - 144.00	1.0000	1.0000
L1	3	PWRT-608-S(13/16)	139.25 - 144.00	1.0000	1.0000
L1	4	PWRT-606-S(7/8)	139.25 - 144.00	1.0000	1.0000
L1	5	RFFT-48SM-001-XXX(3/8)	139.25 - 144.00	1.0000	1.0000
L1	27	Safety Line 3/8	139.25 - 144.25	1.0000	1.0000
L2	2	FB-L98B-034-XXX(3/8)	134.75 - 139.25	1.0000	1.0000
L2	3	PWRT-608-S(13/16)	134.75 - 139.25	1.0000	1.0000
L2	4	PWRT-606-S(7/8)	134.75 - 139.25	1.0000	1.0000
L2	5	RFFT-48SM-001-XXX(3/8)	134.75 - 139.25	1.0000	1.0000
L2	27	Safety Line 3/8	134.75 - 139.25	1.0000	1.0000

# tnxTower

**B+T Group**  
1717 S. Boulder, Suite 300  
Tulsa, OK 74119  
Phone: (918) 587-4630  
FAX: (918) 295-0265

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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	$K_a$ No Ice	$K_a$ Ice
L3	2	FB-L98B-034-XXX(3/8)	134.25 - 134.75	1.0000	1.0000
L3	3	PWRT-608-S(13/16)	134.25 - 134.75	1.0000	1.0000
L3	4	PWRT-606-S(7/8)	134.25 - 134.75	1.0000	1.0000
L3	5	RFFT-48SM-001-XXX(3/8)	134.25 - 134.75	1.0000	1.0000
L3	27	Safety Line 3/8	134.25 - 134.75	1.0000	1.0000
L4	2	FB-L98B-034-XXX(3/8)	129.25 - 134.25	1.0000	1.0000
L4	3	PWRT-608-S(13/16)	129.25 - 134.25	1.0000	1.0000
L4	4	PWRT-606-S(7/8)	129.25 - 134.25	1.0000	1.0000
L4	5	RFFT-48SM-001-XXX(3/8)	129.25 - 134.25	1.0000	1.0000
L4	7	7983A(ELLIPTICAL)	129.25 - 130.00	1.0000	1.0000
L4	27	Safety Line 3/8	129.25 - 134.25	1.0000	1.0000
L5	2	FB-L98B-034-XXX(3/8)	124.25 - 129.25	1.0000	1.0000
L5	3	PWRT-608-S(13/16)	124.25 - 129.25	1.0000	1.0000
L5	4	PWRT-606-S(7/8)	124.25 - 129.25	1.0000	1.0000
L5	5	RFFT-48SM-001-XXX(3/8)	124.25 - 129.25	1.0000	1.0000
L5	7	7983A(ELLIPTICAL)	124.25 - 129.25	1.0000	1.0000
L5	27	Safety Line 3/8	124.25 - 129.25	1.0000	1.0000
L5	93	CCI-AFP-045100	124.25 - 125.42	1.0000	1.0000
L5	94	CCI-AFP-045100	124.25 - 125.42	1.0000	1.0000
L5	95	CCI-AFP-045100	124.25 - 125.42	1.0000	1.0000
L6	2	FB-L98B-034-XXX(3/8)	123.42 - 124.25	1.0000	1.0000
L6	3	PWRT-608-S(13/16)	123.42 - 124.25	1.0000	1.0000
L6	4	PWRT-606-S(7/8)	123.42 - 124.25	1.0000	1.0000
L6	5	RFFT-48SM-001-XXX(3/8)	123.42 - 124.25	1.0000	1.0000
L6	7	7983A(ELLIPTICAL)	123.42 - 124.25	1.0000	1.0000
L6	27	Safety Line 3/8	123.42 - 124.25	1.0000	1.0000
L6	93	CCI-AFP-045100	123.42 - 124.25	1.0000	1.0000
L6	94	CCI-AFP-045100	123.42 - 124.25	1.0000	1.0000
L6	95	CCI-AFP-045100	123.42 - 124.25	1.0000	1.0000
L7	2	FB-L98B-034-XXX(3/8)	123.17 - 123.42	1.0000	1.0000
L7	3	PWRT-608-S(13/16)	123.17 - 123.42	1.0000	1.0000

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 Tulsa, OK 74119  
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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	$K_a$ No Ice	$K_a$ Ice
L7	4	PWRT-606-S(7/8)	123.17 - 123.42	1.0000	1.0000
L7	5	RFFT-48SM-001-XXX(3/8)	123.17 - 123.42	1.0000	1.0000
L7	7	7983A(ELLIPTICAL)	123.17 - 123.42	1.0000	1.0000
L7	27	Safety Line 3/8	123.17 - 123.42	1.0000	1.0000
L7	93	CCI-AFP-045100	123.17 - 123.42	1.0000	1.0000
L7	94	CCI-AFP-045100	123.17 - 123.42	1.0000	1.0000
L7	95	CCI-AFP-045100	123.17 - 123.42	1.0000	1.0000
L8	2	FB-L98B-034-XXX(3/8)	118.17 - 123.17	1.0000	1.0000
L8	3	PWRT-608-S(13/16)	118.17 - 123.17	1.0000	1.0000
L8	4	PWRT-606-S(7/8)	118.17 - 123.17	1.0000	1.0000
L8	5	RFFT-48SM-001-XXX(3/8)	118.17 - 123.17	1.0000	1.0000
L8	7	7983A(ELLIPTICAL)	118.17 - 123.17	1.0000	1.0000
L8	12	CU12PSM9P6XXX(1-1/2)	118.17 - 120.00	1.0000	1.0000
L8	27	Safety Line 3/8	118.17 - 123.17	1.0000	1.0000
L8	93	CCI-AFP-045100	118.17 - 123.17	1.0000	1.0000
L8	94	CCI-AFP-045100	118.17 - 123.17	1.0000	1.0000
L8	95	CCI-AFP-045100	118.17 - 123.17	1.0000	1.0000
L9	2	FB-L98B-034-XXX(3/8)	113.17 - 118.17	1.0000	1.0000
L9	3	PWRT-608-S(13/16)	113.17 - 118.17	1.0000	1.0000
L9	4	PWRT-606-S(7/8)	113.17 - 118.17	1.0000	1.0000
L9	5	RFFT-48SM-001-XXX(3/8)	113.17 - 118.17	1.0000	1.0000
L9	7	7983A(ELLIPTICAL)	113.17 - 118.17	1.0000	1.0000
L9	12	CU12PSM9P6XXX(1-1/2)	113.17 - 118.17	1.0000	1.0000
L9	27	Safety Line 3/8	113.17 - 118.17	1.0000	1.0000
L9	93	CCI-AFP-045100	113.17 - 118.17	1.0000	1.0000
L9	94	CCI-AFP-045100	113.17 - 118.17	1.0000	1.0000
L9	95	CCI-AFP-045100	113.17 - 118.17	1.0000	1.0000
L10	2	FB-L98B-034-XXX(3/8)	109.50 - 113.17	1.0000	1.0000
L10	3	PWRT-608-S(13/16)	109.50 - 113.17	1.0000	1.0000
L10	4	PWRT-606-S(7/8)	109.50 - 113.17	1.0000	1.0000
L10	5	RFFT-48SM-001-XXX(3/8)	109.50 - 113.17	1.0000	1.0000

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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	$K_a$ No Ice	$K_a$ Ice
L10	7	7983A(ELLIPTICAL)	109.50 - 113.17	1.0000	1.0000
L10	12	CU12PSM9P6XXX(1-1/2)	109.50 - 113.17	1.0000	1.0000
L10	27	Safety Line 3/8	109.50 - 113.17	1.0000	1.0000
L10	93	CCI-AFP-045100	109.50 - 113.17	1.0000	1.0000
L10	94	CCI-AFP-045100	109.50 - 113.17	1.0000	1.0000
L10	95	CCI-AFP-045100	109.50 - 113.17	1.0000	1.0000
L10	97	CCI-AFP-040075	109.50 - 111.00	1.0000	1.0000
L10	99	CCI-AFP-040075	109.50 - 111.00	1.0000	1.0000
L11	2	FB-L98B-034-XXX(3/8)	109.25 - 109.50	1.0000	1.0000
L11	3	PWRT-608-S(13/16)	109.25 - 109.50	1.0000	1.0000
L11	4	PWRT-606-S(7/8)	109.25 - 109.50	1.0000	1.0000
L11	5	RFFT-48SM-001-XXX(3/8)	109.25 - 109.50	1.0000	1.0000
L11	7	7983A(ELLIPTICAL)	109.25 - 109.50	1.0000	1.0000
L11	12	CU12PSM9P6XXX(1-1/2)	109.25 - 109.50	1.0000	1.0000
L11	27	Safety Line 3/8	109.25 - 109.50	1.0000	1.0000
L11	93	CCI-AFP-045100	109.25 - 109.50	1.0000	1.0000
L11	94	CCI-AFP-045100	109.25 - 109.50	1.0000	1.0000
L11	95	CCI-AFP-045100	109.25 - 109.50	1.0000	1.0000
L11	97	CCI-AFP-040075	109.25 - 109.50	1.0000	1.0000
L11	99	CCI-AFP-040075	109.25 - 109.50	1.0000	1.0000
L12	2	FB-L98B-034-XXX(3/8)	104.75 - 109.25	1.0000	1.0000
L12	3	PWRT-608-S(13/16)	104.75 - 109.25	1.0000	1.0000
L12	4	PWRT-606-S(7/8)	104.75 - 109.25	1.0000	1.0000
L12	5	RFFT-48SM-001-XXX(3/8)	104.75 - 109.25	1.0000	1.0000
L12	7	7983A(ELLIPTICAL)	104.75 - 109.25	1.0000	1.0000
L12	12	CU12PSM9P6XXX(1-1/2)	104.75 - 109.25	1.0000	1.0000
L12	27	Safety Line 3/8	104.75 - 109.25	1.0000	1.0000
L12	59	PL1x4 Reinforcement	104.75 - 106.50	1.0000	1.0000
L12	60	PL1x4 Reinforcement	104.75 - 106.50	1.0000	1.0000
L12	61	PL1x4 Reinforcement	104.75 - 106.50	1.0000	1.0000
L12	91	CCI-AFP-05012520	104.75 - 105.33	1.0000	1.0000



<i>Tower Section</i>	<i>Feed Line Record No.</i>	<i>Description</i>	<i>Feed Line Segment Elev.</i>	<i>K<sub>a</sub> No Ice</i>	<i>K<sub>a</sub> Ice</i>
L12	93	CCI-AFP-045100	104.75 - 109.25	1.0000	1.0000
L12	94	CCI-AFP-045100	104.75 - 109.25	1.0000	1.0000
L12	95	CCI-AFP-045100	104.75 - 109.25	1.0000	1.0000
L12	97	CCI-AFP-040075	104.75 - 109.25	1.0000	1.0000
L12	99	CCI-AFP-040075	104.75 - 109.25	1.0000	1.0000
L13	2	FB-L98B-034-XXX(3/8)	104.50 - 104.75	1.0000	1.0000
L13	3	PWRT-608-S(13/16)	104.50 - 104.75	1.0000	1.0000
L13	4	PWRT-606-S(7/8)	104.50 - 104.75	1.0000	1.0000
L13	5	RFFT-48SM-001-XXX(3/8)	104.50 - 104.75	1.0000	1.0000
L13	7	7983A(ELLIPTICAL)	104.50 - 104.75	1.0000	1.0000
L13	12	CU12PSM9P6XXX(1-1/2)	104.50 - 104.75	1.0000	1.0000
L13	27	Safety Line 3/8	104.50 - 104.75	1.0000	1.0000
L13	59	PL1x4 Reinforcement	104.50 - 104.75	1.0000	1.0000
L13	60	PL1x4 Reinforcement	104.50 - 104.75	1.0000	1.0000
L13	61	PL1x4 Reinforcement	104.50 - 104.75	1.0000	1.0000
L13	91	CCI-AFP-05012520	104.50 - 104.75	1.0000	1.0000
L13	93	CCI-AFP-045100	104.50 - 104.75	1.0000	1.0000
L13	94	CCI-AFP-045100	104.50 - 104.75	1.0000	1.0000
L13	95	CCI-AFP-045100	104.50 - 104.75	1.0000	1.0000
L13	97	CCI-AFP-040075	104.50 - 104.75	1.0000	1.0000
L13	99	CCI-AFP-040075	104.50 - 104.75	1.0000	1.0000
L14	2	FB-L98B-034-XXX(3/8)	102.42 - 104.50	1.0000	1.0000
L14	3	PWRT-608-S(13/16)	102.42 - 104.50	1.0000	1.0000
L14	4	PWRT-606-S(7/8)	102.42 - 104.50	1.0000	1.0000
L14	5	RFFT-48SM-001-XXX(3/8)	102.42 - 104.50	1.0000	1.0000
L14	7	7983A(ELLIPTICAL)	102.42 - 104.50	1.0000	1.0000
L14	12	CU12PSM9P6XXX(1-1/2)	102.42 - 104.50	1.0000	1.0000
L14	27	Safety Line 3/8	102.42 - 104.50	1.0000	1.0000
L14	59	PL1x4 Reinforcement	102.42 - 104.50	1.0000	1.0000
L14	60	PL1x4 Reinforcement	102.42 - 104.50	1.0000	1.0000
L14	61	PL1x4 Reinforcement	102.42 - 104.50	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	$K_a$ No Ice	$K_a$ Ice
L14	91	CCI-AFP-05012520	102.42 - 104.50	1.0000	1.0000
L14	93	CCI-AFP-045100	102.42 - 104.50	1.0000	1.0000
L14	94	CCI-AFP-045100	102.42 - 104.50	1.0000	1.0000
L14	95	CCI-AFP-045100	102.42 - 104.50	1.0000	1.0000
L14	97	CCI-AFP-040075	102.42 - 104.50	1.0000	1.0000
L14	99	CCI-AFP-040075	102.42 - 104.50	1.0000	1.0000
L15	2	FB-L98B-034-XXX(3/8)	102.17 - 102.42	1.0000	1.0000
L15	3	PWRT-608-S(13/16)	102.17 - 102.42	1.0000	1.0000
L15	4	PWRT-606-S(7/8)	102.17 - 102.42	1.0000	1.0000
L15	5	RFFT-48SM-001-XXX(3/8)	102.17 - 102.42	1.0000	1.0000
L15	7	7983A(ELLIPTICAL)	102.17 - 102.42	1.0000	1.0000
L15	12	CU12PSM9P6XXX(1-1/2)	102.17 - 102.42	1.0000	1.0000
L15	27	Safety Line 3/8	102.17 - 102.42	1.0000	1.0000
L15	59	PL1x4 Reinforcement	102.17 - 102.42	1.0000	1.0000
L15	60	PL1x4 Reinforcement	102.17 - 102.42	1.0000	1.0000
L15	61	PL1x4 Reinforcement	102.17 - 102.42	1.0000	1.0000
L15	91	CCI-AFP-05012520	102.17 - 102.42	1.0000	1.0000
L15	93	CCI-AFP-045100	102.17 - 102.42	1.0000	1.0000
L15	94	CCI-AFP-045100	102.17 - 102.42	1.0000	1.0000
L15	95	CCI-AFP-045100	102.17 - 102.42	1.0000	1.0000
L15	97	CCI-AFP-040075	102.17 - 102.42	1.0000	1.0000
L15	99	CCI-AFP-040075	102.17 - 102.42	1.0000	1.0000
L16	2	FB-L98B-034-XXX(3/8)	98.75 - 102.17	1.0000	1.0000
L16	3	PWRT-608-S(13/16)	98.75 - 102.17	1.0000	1.0000
L16	4	PWRT-606-S(7/8)	98.75 - 102.17	1.0000	1.0000
L16	5	RFFT-48SM-001-XXX(3/8)	98.75 - 102.17	1.0000	1.0000
L16	7	7983A(ELLIPTICAL)	98.75 - 102.17	1.0000	1.0000
L16	12	CU12PSM9P6XXX(1-1/2)	98.75 - 102.17	1.0000	1.0000
L16	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	98.75 - 100.00	1.0000	1.0000
L16	27	Safety Line 3/8	98.75 - 102.17	1.0000	1.0000
L16	43	PL1.25x3.625 Reinforcement	98.75 - 100.00	1.0000	1.0000
L16	44	PL1.25x3.625 Reinforcement	98.75 - 100.00	1.0000	1.0000
L16	45	PL1.25x3.625 Reinforcement	98.75 - 100.00	1.0000	1.0000
L16	59	PL1x4 Reinforcement	98.75 - 102.17	1.0000	1.0000
L16	60	PL1x4 Reinforcement	98.75 - 102.17	1.0000	1.0000
L16	61	PL1x4 Reinforcement	98.75 - 102.17	1.0000	1.0000
L16	86	CCI-SFP-040075	98.75 - 100.33	1.0000	1.0000
L16	87	CCI-SFP-040075	98.75 - 100.33	1.0000	1.0000
L16	91	CCI-AFP-05012520	98.75 - 102.17	1.0000	1.0000

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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	$K_a$ No Ice	$K_a$ Ice
L16	93	CCI-AFP-045100	100.42 - 102.17	1.0000	1.0000
L16	94	CCI-AFP-045100	100.42 - 102.17	1.0000	1.0000
L16	95	CCI-AFP-045100	100.42 - 102.17	1.0000	1.0000
L16	97	CCI-AFP-040075	98.75 - 102.17	1.0000	1.0000
L16	99	CCI-AFP-040075	101.00 - 102.17	1.0000	1.0000
L17	2	FB-L98B-034-XXX(3/8)	98.50 - 98.75	1.0000	1.0000
L17	3	PWRT-608-S(13/16)	98.50 - 98.75	1.0000	1.0000
L17	4	PWRT-606-S(7/8)	98.50 - 98.75	1.0000	1.0000
L17	5	RFFT-48SM-001-XXX(3/8)	98.50 - 98.75	1.0000	1.0000
L17	7	7983A(ELLIPTICAL)	98.50 - 98.75	1.0000	1.0000
L17	12	CU12PSM9P6XXX(1-1/2)	98.50 - 98.75	1.0000	1.0000
L17	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	98.50 - 98.75	1.0000	1.0000
L17	27	Safety Line 3/8	98.50 - 98.75	1.0000	1.0000
L17	43	PL1.25x3.625 Reinforcement	98.50 - 98.75	1.0000	1.0000
L17	44	PL1.25x3.625 Reinforcement	98.50 - 98.75	1.0000	1.0000
L17	45	PL1.25x3.625 Reinforcement	98.50 - 98.75	1.0000	1.0000
L17	59	PL1x4 Reinforcement	98.50 - 98.75	1.0000	1.0000
L17	60	PL1x4 Reinforcement	98.50 - 98.75	1.0000	1.0000
L17	61	PL1x4 Reinforcement	98.50 - 98.75	1.0000	1.0000
L17	86	CCI-SFP-040075	98.50 - 98.75	1.0000	1.0000
L17	87	CCI-SFP-040075	98.50 - 98.75	1.0000	1.0000
L17	91	CCI-AFP-05012520	98.50 - 98.75	1.0000	1.0000
L17	97	CCI-AFP-040075	98.50 - 98.75	1.0000	1.0000
L18	2	FB-L98B-034-XXX(3/8)	97.50 - 98.50	1.0000	1.0000
L18	3	PWRT-608-S(13/16)	97.50 - 98.50	1.0000	1.0000
L18	4	PWRT-606-S(7/8)	97.50 - 98.50	1.0000	1.0000
L18	5	RFFT-48SM-001-XXX(3/8)	97.50 - 98.50	1.0000	1.0000
L18	7	7983A(ELLIPTICAL)	97.50 - 98.50	1.0000	1.0000
L18	12	CU12PSM9P6XXX(1-1/2)	97.50 - 98.50	1.0000	1.0000
L18	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	97.50 - 98.50	1.0000	1.0000
L18	27	Safety Line 3/8	97.50 - 98.50	1.0000	1.0000
L18	43	PL1.25x3.625 Reinforcement	97.50 - 98.50	1.0000	1.0000
L18	44	PL1.25x3.625 Reinforcement	97.50 - 98.50	1.0000	1.0000
L18	45	PL1.25x3.625 Reinforcement	97.50 - 98.50	1.0000	1.0000
L18	59	PL1x4 Reinforcement	97.50 - 98.50	1.0000	1.0000
L18	60	PL1x4 Reinforcement	97.50 - 98.50	1.0000	1.0000
L18	61	PL1x4 Reinforcement	97.50 - 98.50	1.0000	1.0000
L18	86	CCI-SFP-040075	97.50 - 98.50	1.0000	1.0000
L18	87	CCI-SFP-040075	97.50 - 98.50	1.0000	1.0000
L18	91	CCI-AFP-05012520	97.50 - 98.50	1.0000	1.0000
L18	97	CCI-AFP-040075	97.50 - 98.50	1.0000	1.0000
L19	2	FB-L98B-034-XXX(3/8)	97.25 - 97.50	1.0000	1.0000
L19	3	PWRT-608-S(13/16)	97.25 - 97.50	1.0000	1.0000
L19	4	PWRT-606-S(7/8)	97.25 - 97.50	1.0000	1.0000
L19	5	RFFT-48SM-001-XXX(3/8)	97.25 - 97.50	1.0000	1.0000
L19	7	7983A(ELLIPTICAL)	97.25 - 97.50	1.0000	1.0000
L19	12	CU12PSM9P6XXX(1-1/2)	97.25 - 97.50	1.0000	1.0000
L19	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	97.25 - 97.50	1.0000	1.0000
L19	27	Safety Line 3/8	97.25 - 97.50	1.0000	1.0000
L19	43	PL1.25x3.625 Reinforcement	97.25 - 97.50	1.0000	1.0000
L19	44	PL1.25x3.625 Reinforcement	97.25 - 97.50	1.0000	1.0000
L19	45	PL1.25x3.625 Reinforcement	97.25 - 97.50	1.0000	1.0000
L19	59	PL1x4 Reinforcement	97.25 - 97.50	1.0000	1.0000
L19	60	PL1x4 Reinforcement	97.25 - 97.50	1.0000	1.0000
L19	61	PL1x4 Reinforcement	97.25 - 97.50	1.0000	1.0000

# tnxTower

**B+T Group**  
1717 S. Boulder, Suite 300  
Tulsa, OK 74119  
Phone: (918) 587-4630  
FAX: (918) 295-0265

**Job**  
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**Project**  
**Date**  
16:40:32 05/09/22

**Client**  
Crown Castle  
**Designed by**  
Jayaraj B

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L19	86	CCI-SFP-040075	97.25 - 97.50	1.0000	1.0000
L19	87	CCI-SFP-040075	97.25 - 97.50	1.0000	1.0000
L19	91	CCI-AFP-05012520	97.25 - 97.50	1.0000	1.0000
L19	97	CCI-AFP-040075	97.25 - 97.50	1.0000	1.0000
L20	2	FB-L98B-034-XXX(3/8)	92.00 - 97.25	1.0000	1.0000
L20	3	PWRT-608-S(13/16)	92.00 - 97.25	1.0000	1.0000
L20	4	PWRT-606-S(7/8)	92.00 - 97.25	1.0000	1.0000
L20	5	RFFT-48SM-001-XXX(3/8)	92.00 - 97.25	1.0000	1.0000
L20	7	7983A(ELLIPTICAL)	92.00 - 97.25	1.0000	1.0000
L20	12	CU12PSM9P6XXX(1-1/2)	92.00 - 97.25	1.0000	1.0000
L20	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	92.00 - 97.25	1.0000	1.0000
L20	27	Safety Line 3/8	92.00 - 97.25	1.0000	1.0000
L20	43	PL1.25x3.625 Reinforcement	92.00 - 97.25	1.0000	1.0000
L20	44	PL1.25x3.625 Reinforcement	92.00 - 97.25	1.0000	1.0000
L20	45	PL1.25x3.625 Reinforcement	92.00 - 97.25	1.0000	1.0000
L20	59	PL1x4 Reinforcement	92.00 - 97.25	1.0000	1.0000
L20	60	PL1x4 Reinforcement	92.00 - 97.25	1.0000	1.0000
L20	61	PL1x4 Reinforcement	92.00 - 97.25	1.0000	1.0000
L20	86	CCI-SFP-040075	92.00 - 97.25	1.0000	1.0000
L20	87	CCI-SFP-040075	92.00 - 97.25	1.0000	1.0000
L20	91	CCI-AFP-05012520	92.00 - 97.25	1.0000	1.0000
L20	97	CCI-AFP-040075	96.00 - 97.25	1.0000	1.0000
L21	2	FB-L98B-034-XXX(3/8)	90.55 - 92.00	1.0000	1.0000
L21	3	PWRT-608-S(13/16)	90.55 - 92.00	1.0000	1.0000
L21	4	PWRT-606-S(7/8)	90.55 - 92.00	1.0000	1.0000
L21	5	RFFT-48SM-001-XXX(3/8)	90.55 - 92.00	1.0000	1.0000
L21	7	7983A(ELLIPTICAL)	90.55 - 92.00	1.0000	1.0000
L21	12	CU12PSM9P6XXX(1-1/2)	90.55 - 92.00	1.0000	1.0000
L21	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	90.55 - 92.00	1.0000	1.0000
L21	27	Safety Line 3/8	90.55 - 92.00	1.0000	1.0000
L21	43	PL1.25x3.625 Reinforcement	90.55 - 92.00	1.0000	1.0000
L21	44	PL1.25x3.625 Reinforcement	90.55 - 92.00	1.0000	1.0000
L21	45	PL1.25x3.625 Reinforcement	90.55 - 92.00	1.0000	1.0000
L21	59	PL1x4 Reinforcement	90.55 - 92.00	1.0000	1.0000
L21	60	PL1x4 Reinforcement	90.55 - 92.00	1.0000	1.0000
L21	61	PL1x4 Reinforcement	90.55 - 92.00	1.0000	1.0000
L21	86	CCI-SFP-040075	90.55 - 92.00	1.0000	1.0000
L21	87	CCI-SFP-040075	90.55 - 92.00	1.0000	1.0000
L21	91	CCI-AFP-05012520	90.55 - 92.00	1.0000	1.0000
L22	2	FB-L98B-034-XXX(3/8)	89.25 - 90.55	1.0000	1.0000
L22	3	PWRT-608-S(13/16)	89.25 - 90.55	1.0000	1.0000
L22	4	PWRT-606-S(7/8)	89.25 - 90.55	1.0000	1.0000
L22	5	RFFT-48SM-001-XXX(3/8)	89.25 - 90.55	1.0000	1.0000
L22	7	7983A(ELLIPTICAL)	89.25 - 90.55	1.0000	1.0000
L22	12	CU12PSM9P6XXX(1-1/2)	89.25 - 90.55	1.0000	1.0000
L22	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	89.25 - 90.55	1.0000	1.0000
L22	27	Safety Line 3/8	89.25 - 90.55	1.0000	1.0000
L22	43	PL1.25x3.625 Reinforcement	89.25 - 90.55	1.0000	1.0000
L22	44	PL1.25x3.625 Reinforcement	89.25 - 90.55	1.0000	1.0000
L22	45	PL1.25x3.625 Reinforcement	89.25 - 90.55	1.0000	1.0000
L22	59	PL1x4 Reinforcement	89.25 - 90.55	1.0000	1.0000
L22	60	PL1x4 Reinforcement	89.25 - 90.55	1.0000	1.0000
L22	61	PL1x4 Reinforcement	89.25 - 90.55	1.0000	1.0000
L22	86	CCI-SFP-040075	89.25 - 90.55	1.0000	1.0000
L22	87	CCI-SFP-040075	89.25 - 90.55	1.0000	1.0000
L22	89	CCI-SFP-040075	89.25 - 90.33	1.0000	1.0000
L22	91	CCI-AFP-05012520	89.25 - 90.55	1.0000	1.0000
L23	2	FB-L98B-034-XXX(3/8)	89.00 - 89.25	1.0000	1.0000
L23	3	PWRT-608-S(13/16)	89.00 - 89.25	1.0000	1.0000

# tnxTower

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1717 S. Boulder, Suite 300  
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**Job**  
79982.012.01 - WATERBURY,CT (BU# 876317)

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**Project**  
**Date**  
16:40:32 05/09/22

**Client**  
Crown Castle  
**Designed by**  
Jayaraj B

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L23	4	PWRT-606-S(7/8)	89.00 - 89.25	1.0000	1.0000
L23	5	RFFT-48SM-001-XXX(3/8)	89.00 - 89.25	1.0000	1.0000
L23	7	7983A(ELLIPTICAL)	89.00 - 89.25	1.0000	1.0000
L23	12	CU12PSM9P6XXX(1-1/2)	89.00 - 89.25	1.0000	1.0000
L23	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	89.00 - 89.25	1.0000	1.0000
L23	27	Safety Line 3/8	89.00 - 89.25	1.0000	1.0000
L23	39	PL1.25x5.5 Reinforcement	89.00 - 89.25	1.0000	1.0000
L23	40	PL1.25x5.5 Reinforcement	89.00 - 89.25	1.0000	1.0000
L23	41	PL1.25x5.5 Reinforcement	89.00 - 89.25	1.0000	1.0000
L23	59	PL1x4 Reinforcement	89.00 - 89.25	1.0000	1.0000
L23	60	PL1x4 Reinforcement	89.00 - 89.25	1.0000	1.0000
L23	61	PL1x4 Reinforcement	89.00 - 89.25	1.0000	1.0000
L23	86	CCI-SFP-040075	89.00 - 89.25	1.0000	1.0000
L23	87	CCI-SFP-040075	89.00 - 89.25	1.0000	1.0000
L23	89	CCI-SFP-040075	89.00 - 89.25	1.0000	1.0000
L23	91	CCI-AFP-05012520	89.00 - 89.25	1.0000	1.0000
L24	2	FB-L98B-034-XXX(3/8)	88.25 - 89.00	1.0000	1.0000
L24	3	PWRT-608-S(13/16)	88.25 - 89.00	1.0000	1.0000
L24	4	PWRT-606-S(7/8)	88.25 - 89.00	1.0000	1.0000
L24	5	RFFT-48SM-001-XXX(3/8)	88.25 - 89.00	1.0000	1.0000
L24	7	7983A(ELLIPTICAL)	88.25 - 89.00	1.0000	1.0000
L24	12	CU12PSM9P6XXX(1-1/2)	88.25 - 89.00	1.0000	1.0000
L24	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	88.25 - 89.00	1.0000	1.0000
L24	27	Safety Line 3/8	88.25 - 89.00	1.0000	1.0000
L24	39	PL1.25x5.5 Reinforcement	88.25 - 89.00	1.0000	1.0000
L24	40	PL1.25x5.5 Reinforcement	88.25 - 89.00	1.0000	1.0000
L24	41	PL1.25x5.5 Reinforcement	88.25 - 89.00	1.0000	1.0000
L24	59	PL1x4 Reinforcement	88.25 - 89.00	1.0000	1.0000
L24	60	PL1x4 Reinforcement	88.25 - 89.00	1.0000	1.0000
L24	61	PL1x4 Reinforcement	88.25 - 89.00	1.0000	1.0000
L24	86	CCI-SFP-040075	88.25 - 89.00	1.0000	1.0000
L24	87	CCI-SFP-040075	88.25 - 89.00	1.0000	1.0000
L24	89	CCI-SFP-040075	88.25 - 89.00	1.0000	1.0000
L24	91	CCI-AFP-05012520	88.25 - 89.00	1.0000	1.0000
L25	2	FB-L98B-034-XXX(3/8)	88.00 - 88.25	1.0000	1.0000
L25	3	PWRT-608-S(13/16)	88.00 - 88.25	1.0000	1.0000
L25	4	PWRT-606-S(7/8)	88.00 - 88.25	1.0000	1.0000
L25	5	RFFT-48SM-001-XXX(3/8)	88.00 - 88.25	1.0000	1.0000
L25	7	7983A(ELLIPTICAL)	88.00 - 88.25	1.0000	1.0000
L25	12	CU12PSM9P6XXX(1-1/2)	88.00 - 88.25	1.0000	1.0000
L25	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	88.00 - 88.25	1.0000	1.0000
L25	27	Safety Line 3/8	88.00 - 88.25	1.0000	1.0000
L25	39	PL1.25x5.5 Reinforcement	88.00 - 88.25	1.0000	1.0000
L25	40	PL1.25x5.5 Reinforcement	88.00 - 88.25	1.0000	1.0000
L25	41	PL1.25x5.5 Reinforcement	88.00 - 88.25	1.0000	1.0000
L25	59	PL1x4 Reinforcement	88.00 - 88.25	1.0000	1.0000
L25	60	PL1x4 Reinforcement	88.00 - 88.25	1.0000	1.0000
L25	61	PL1x4 Reinforcement	88.00 - 88.25	1.0000	1.0000
L25	86	CCI-SFP-040075	88.00 - 88.25	1.0000	1.0000
L25	87	CCI-SFP-040075	88.00 - 88.25	1.0000	1.0000
L25	89	CCI-SFP-040075	88.00 - 88.25	1.0000	1.0000
L25	91	CCI-AFP-05012520	88.00 - 88.25	1.0000	1.0000
L26	2	FB-L98B-034-XXX(3/8)	87.83 - 88.00	1.0000	1.0000
L26	3	PWRT-608-S(13/16)	87.83 - 88.00	1.0000	1.0000
L26	4	PWRT-606-S(7/8)	87.83 - 88.00	1.0000	1.0000
L26	5	RFFT-48SM-001-XXX(3/8)	87.83 - 88.00	1.0000	1.0000
L26	7	7983A(ELLIPTICAL)	87.83 - 88.00	1.0000	1.0000
L26	12	CU12PSM9P6XXX(1-1/2)	87.83 - 88.00	1.0000	1.0000
L26	21	MLC HYBRID 6X12	87.83 - 88.00	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L26	27	6AWGX6(1-1/2)			
L26	39	Safety Line 3/8	87.83 - 88.00	1.0000	1.0000
L26	40	PL1.25x5.5 Reinforcement	87.83 - 88.00	1.0000	1.0000
L26	41	PL1.25x5.5 Reinforcement	87.83 - 88.00	1.0000	1.0000
L26	59	PL1x4 Reinforcement	87.83 - 88.00	1.0000	1.0000
L26	60	PL1x4 Reinforcement	87.83 - 88.00	1.0000	1.0000
L26	61	PL1x4 Reinforcement	87.83 - 88.00	1.0000	1.0000
L26	86	CCI-SFP-040075	87.83 - 88.00	1.0000	1.0000
L26	87	CCI-SFP-040075	87.83 - 88.00	1.0000	1.0000
L26	89	CCI-SFP-040075	87.83 - 88.00	1.0000	1.0000
L26	91	CCI-AFP-05012520	87.83 - 88.00	1.0000	1.0000
L27	2	FB-L98B-034-XXX(3/8)	87.58 - 87.83	1.0000	1.0000
L27	3	PWRT-608-S(13/16)	87.58 - 87.83	1.0000	1.0000
L27	4	PWRT-606-S(7/8)	87.58 - 87.83	1.0000	1.0000
L27	5	RFFT-48SM-001-XXX(3/8)	87.58 - 87.83	1.0000	1.0000
L27	7	7983A(ELLIPTICAL)	87.58 - 87.83	1.0000	1.0000
L27	12	CU12PSM9P6XXX(1-1/2)	87.58 - 87.83	1.0000	1.0000
L27	21	MLC HYBRID 6X12	87.58 - 87.83	1.0000	1.0000
L27	27	6AWGX6(1-1/2)			
L27	39	Safety Line 3/8	87.58 - 87.83	1.0000	1.0000
L27	40	PL1.25x5.5 Reinforcement	87.58 - 87.83	1.0000	1.0000
L27	41	PL1.25x5.5 Reinforcement	87.58 - 87.83	1.0000	1.0000
L27	59	PL1x4 Reinforcement	87.58 - 87.83	1.0000	1.0000
L27	60	PL1x4 Reinforcement	87.58 - 87.83	1.0000	1.0000
L27	61	PL1x4 Reinforcement	87.58 - 87.83	1.0000	1.0000
L27	86	CCI-SFP-040075	87.58 - 87.83	1.0000	1.0000
L27	87	CCI-SFP-040075	87.58 - 87.83	1.0000	1.0000
L27	89	CCI-SFP-040075	87.58 - 87.83	1.0000	1.0000
L27	91	CCI-AFP-05012520	87.58 - 87.83	1.0000	1.0000
L28	2	FB-L98B-034-XXX(3/8)	82.58 - 87.58	1.0000	1.0000
L28	3	PWRT-608-S(13/16)	82.58 - 87.58	1.0000	1.0000
L28	4	PWRT-606-S(7/8)	82.58 - 87.58	1.0000	1.0000
L28	5	RFFT-48SM-001-XXX(3/8)	82.58 - 87.58	1.0000	1.0000
L28	7	7983A(ELLIPTICAL)	82.58 - 87.58	1.0000	1.0000
L28	12	CU12PSM9P6XXX(1-1/2)	82.58 - 87.58	1.0000	1.0000
L28	21	MLC HYBRID 6X12	82.58 - 87.58	1.0000	1.0000
L28	27	6AWGX6(1-1/2)			
L28	39	Safety Line 3/8	82.58 - 87.58	1.0000	1.0000
L28	40	PL1.25x5.5 Reinforcement	82.58 - 87.58	1.0000	1.0000
L28	41	PL1.25x5.5 Reinforcement	82.58 - 87.58	1.0000	1.0000
L28	59	PL1x4 Reinforcement	86.50 - 87.58	1.0000	1.0000
L28	60	PL1x4 Reinforcement	86.50 - 87.58	1.0000	1.0000
L28	61	PL1x4 Reinforcement	86.50 - 87.58	1.0000	1.0000
L28	86	CCI-SFP-040075	82.58 - 87.58	1.0000	1.0000
L28	87	CCI-SFP-040075	82.58 - 87.58	1.0000	1.0000
L28	89	CCI-SFP-040075	82.58 - 87.58	1.0000	1.0000
L28	91	CCI-AFP-05012520	85.33 - 87.58	1.0000	1.0000
L29	2	FB-L98B-034-XXX(3/8)	77.58 - 82.58	1.0000	1.0000
L29	3	PWRT-608-S(13/16)	77.58 - 82.58	1.0000	1.0000
L29	4	PWRT-606-S(7/8)	77.58 - 82.58	1.0000	1.0000
L29	5	RFFT-48SM-001-XXX(3/8)	77.58 - 82.58	1.0000	1.0000
L29	7	7983A(ELLIPTICAL)	77.58 - 82.58	1.0000	1.0000
L29	12	CU12PSM9P6XXX(1-1/2)	77.58 - 82.58	1.0000	1.0000
L29	21	MLC HYBRID 6X12	77.58 - 82.58	1.0000	1.0000
L29	27	6AWGX6(1-1/2)			
L29	39	Safety Line 3/8	77.58 - 82.58	1.0000	1.0000
L29	40	PL1.25x5.5 Reinforcement	77.58 - 82.58	1.0000	1.0000
L29	41	PL1.25x5.5 Reinforcement	77.58 - 82.58	1.0000	1.0000
L29	59	PL1x4 Reinforcement	77.58 - 82.58	1.0000	1.0000

# tnxTower

**B+T Group**  
1717 S. Boulder, Suite 300  
Tulsa, OK 74119  
Phone: (918) 587-4630  
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**Job**  
79982.012.01 - WATERBURY,CT (BU# 876317)

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**Project**  
**Date**  
16:40:32 05/09/22

**Client**  
Crown Castle  
**Designed by**  
Jayaraj B

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L29	55	PL1x4 Reinforcement	77.58 - 78.75	1.0000	1.0000
L29	56	PL1x4 Reinforcement	77.58 - 78.75	1.0000	1.0000
L29	57	PL1x4 Reinforcement	77.58 - 78.75	1.0000	1.0000
L29	86	CCI-SFP-040075	77.58 - 82.58	1.0000	1.0000
L29	87	CCI-SFP-040075	77.58 - 82.58	1.0000	1.0000
L29	89	CCI-SFP-040075	77.58 - 82.58	1.0000	1.0000
L30	2	FB-L98B-034-XXX(3/8)	77.00 - 77.58	1.0000	1.0000
L30	3	PWRT-608-S(13/16)	77.00 - 77.58	1.0000	1.0000
L30	4	PWRT-606-S(7/8)	77.00 - 77.58	1.0000	1.0000
L30	5	RFFT-48SM-001-XXX(3/8)	77.00 - 77.58	1.0000	1.0000
L30	7	7983A(ELLIPTICAL)	77.00 - 77.58	1.0000	1.0000
L30	12	CU12PSM9P6XXX(1-1/2)	77.00 - 77.58	1.0000	1.0000
L30	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	77.00 - 77.58	1.0000	1.0000
L30	27	Safety Line 3/8	77.00 - 77.58	1.0000	1.0000
L30	39	PL1.25x5.5 Reinforcement	77.00 - 77.58	1.0000	1.0000
L30	40	PL1.25x5.5 Reinforcement	77.00 - 77.58	1.0000	1.0000
L30	41	PL1.25x5.5 Reinforcement	77.00 - 77.58	1.0000	1.0000
L30	55	PL1x4 Reinforcement	77.00 - 77.58	1.0000	1.0000
L30	56	PL1x4 Reinforcement	77.00 - 77.58	1.0000	1.0000
L30	57	PL1x4 Reinforcement	77.00 - 77.58	1.0000	1.0000
L30	86	CCI-SFP-040075	77.00 - 77.58	1.0000	1.0000
L30	87	CCI-SFP-040075	77.00 - 77.58	1.0000	1.0000
L30	89	CCI-SFP-040075	77.00 - 77.58	1.0000	1.0000
L31	2	FB-L98B-034-XXX(3/8)	76.75 - 77.00	1.0000	1.0000
L31	3	PWRT-608-S(13/16)	76.75 - 77.00	1.0000	1.0000
L31	4	PWRT-606-S(7/8)	76.75 - 77.00	1.0000	1.0000
L31	5	RFFT-48SM-001-XXX(3/8)	76.75 - 77.00	1.0000	1.0000
L31	7	7983A(ELLIPTICAL)	76.75 - 77.00	1.0000	1.0000
L31	12	CU12PSM9P6XXX(1-1/2)	76.75 - 77.00	1.0000	1.0000
L31	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	76.75 - 77.00	1.0000	1.0000
L31	27	Safety Line 3/8	76.75 - 77.00	1.0000	1.0000
L31	39	PL1.25x5.5 Reinforcement	76.75 - 77.00	1.0000	1.0000
L31	40	PL1.25x5.5 Reinforcement	76.75 - 77.00	1.0000	1.0000
L31	41	PL1.25x5.5 Reinforcement	76.75 - 77.00	1.0000	1.0000
L31	55	PL1x4 Reinforcement	76.75 - 77.00	1.0000	1.0000
L31	56	PL1x4 Reinforcement	76.75 - 77.00	1.0000	1.0000
L31	57	PL1x4 Reinforcement	76.75 - 77.00	1.0000	1.0000
L31	86	CCI-SFP-040075	76.75 - 77.00	1.0000	1.0000
L31	87	CCI-SFP-040075	76.75 - 77.00	1.0000	1.0000
L31	89	CCI-SFP-040075	76.75 - 77.00	1.0000	1.0000
L32	2	FB-L98B-034-XXX(3/8)	76.33 - 76.75	1.0000	1.0000
L32	3	PWRT-608-S(13/16)	76.33 - 76.75	1.0000	1.0000
L32	4	PWRT-606-S(7/8)	76.33 - 76.75	1.0000	1.0000
L32	5	RFFT-48SM-001-XXX(3/8)	76.33 - 76.75	1.0000	1.0000
L32	7	7983A(ELLIPTICAL)	76.33 - 76.75	1.0000	1.0000
L32	12	CU12PSM9P6XXX(1-1/2)	76.33 - 76.75	1.0000	1.0000
L32	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	76.33 - 76.75	1.0000	1.0000
L32	27	Safety Line 3/8	76.33 - 76.75	1.0000	1.0000
L32	39	PL1.25x5.5 Reinforcement	76.33 - 76.75	1.0000	1.0000
L32	40	PL1.25x5.5 Reinforcement	76.33 - 76.75	1.0000	1.0000
L32	41	PL1.25x5.5 Reinforcement	76.33 - 76.75	1.0000	1.0000
L32	55	PL1x4 Reinforcement	76.33 - 76.75	1.0000	1.0000
L32	56	PL1x4 Reinforcement	76.33 - 76.75	1.0000	1.0000
L32	57	PL1x4 Reinforcement	76.33 - 76.75	1.0000	1.0000
L32	86	CCI-SFP-040075	76.33 - 76.75	1.0000	1.0000
L32	87	CCI-SFP-040075	76.33 - 76.75	1.0000	1.0000
L32	89	CCI-SFP-040075	76.33 - 76.75	1.0000	1.0000
L33	2	FB-L98B-034-XXX(3/8)	76.08 - 76.33	1.0000	1.0000
L33	3	PWRT-608-S(13/16)	76.08 - 76.33	1.0000	1.0000



**tnxTower**

**B+T Group**  
 1717 S. Boulder, Suite 300  
 Tulsa, OK 74119  
 Phone: (918) 587-4630  
 FAX: (918) 295-0265

**Job**  
 79982.012.01 - WATERBURY,CT (BU# 876317)

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**Project**  
 Date  
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**Client**  
 Crown Castle  
 Designed by  
 Jayaraj B

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L33	4	PWRT-606-S(7/8)	76.08 - 76.33	1.0000	1.0000
L33	5	RFFT-48SM-001-XXX(3/8)	76.08 - 76.33	1.0000	1.0000
L33	7	7983A(ELLIPTICAL)	76.08 - 76.33	1.0000	1.0000
L33	12	CU12PSM9P6XXX(1-1/2)	76.08 - 76.33	1.0000	1.0000
L33	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	76.08 - 76.33	1.0000	1.0000
L33	27	Safety Line 3/8	76.08 - 76.33	1.0000	1.0000
L33	39	PL1.25x5.5 Reinforcement	76.08 - 76.33	1.0000	1.0000
L33	40	PL1.25x5.5 Reinforcement	76.08 - 76.33	1.0000	1.0000
L33	41	PL1.25x5.5 Reinforcement	76.08 - 76.33	1.0000	1.0000
L33	55	PL1x4 Reinforcement	76.08 - 76.33	1.0000	1.0000
L33	56	PL1x4 Reinforcement	76.08 - 76.33	1.0000	1.0000
L33	57	PL1x4 Reinforcement	76.08 - 76.33	1.0000	1.0000
L33	86	CCI-SFP-040075	76.08 - 76.33	1.0000	1.0000
L33	87	CCI-SFP-040075	76.08 - 76.33	1.0000	1.0000
L33	89	CCI-SFP-040075	76.08 - 76.33	1.0000	1.0000
L34	2	FB-L98B-034-XXX(3/8)	74.25 - 76.08	1.0000	1.0000
L34	3	PWRT-608-S(13/16)	74.25 - 76.08	1.0000	1.0000
L34	4	PWRT-606-S(7/8)	74.25 - 76.08	1.0000	1.0000
L34	5	RFFT-48SM-001-XXX(3/8)	74.25 - 76.08	1.0000	1.0000
L34	7	7983A(ELLIPTICAL)	74.25 - 76.08	1.0000	1.0000
L34	12	CU12PSM9P6XXX(1-1/2)	74.25 - 76.08	1.0000	1.0000
L34	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	74.25 - 76.08	1.0000	1.0000
L34	27	Safety Line 3/8	74.25 - 76.08	1.0000	1.0000
L34	39	PL1.25x5.5 Reinforcement	74.25 - 76.08	1.0000	1.0000
L34	40	PL1.25x5.5 Reinforcement	74.25 - 76.08	1.0000	1.0000
L34	41	PL1.25x5.5 Reinforcement	74.25 - 76.08	1.0000	1.0000
L34	55	PL1x4 Reinforcement	74.25 - 76.08	1.0000	1.0000
L34	56	PL1x4 Reinforcement	74.25 - 76.08	1.0000	1.0000
L34	57	PL1x4 Reinforcement	74.25 - 76.08	1.0000	1.0000
L34	81	CCI-SFP-045100	74.25 - 75.25	1.0000	1.0000
L34	82	CCI-SFP-045100	74.25 - 75.25	1.0000	1.0000
L34	84	CCI-SFP-040075	74.25 - 75.25	1.0000	1.0000
L34	86	CCI-SFP-040075	75.33 - 76.08	1.0000	1.0000
L34	87	CCI-SFP-040075	75.33 - 76.08	1.0000	1.0000
L34	89	CCI-SFP-040075	75.33 - 76.08	1.0000	1.0000
L35	2	FB-L98B-034-XXX(3/8)	74.00 - 74.25	1.0000	1.0000
L35	3	PWRT-608-S(13/16)	74.00 - 74.25	1.0000	1.0000
L35	4	PWRT-606-S(7/8)	74.00 - 74.25	1.0000	1.0000
L35	5	RFFT-48SM-001-XXX(3/8)	74.00 - 74.25	1.0000	1.0000
L35	7	7983A(ELLIPTICAL)	74.00 - 74.25	1.0000	1.0000
L35	12	CU12PSM9P6XXX(1-1/2)	74.00 - 74.25	1.0000	1.0000
L35	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	74.00 - 74.25	1.0000	1.0000
L35	27	Safety Line 3/8	74.00 - 74.25	1.0000	1.0000
L35	39	PL1.25x5.5 Reinforcement	74.00 - 74.25	1.0000	1.0000
L35	40	PL1.25x5.5 Reinforcement	74.00 - 74.25	1.0000	1.0000
L35	41	PL1.25x5.5 Reinforcement	74.00 - 74.25	1.0000	1.0000
L35	55	PL1x4 Reinforcement	74.00 - 74.25	1.0000	1.0000
L35	56	PL1x4 Reinforcement	74.00 - 74.25	1.0000	1.0000
L35	57	PL1x4 Reinforcement	74.00 - 74.25	1.0000	1.0000
L35	81	CCI-SFP-045100	74.00 - 74.25	1.0000	1.0000
L35	82	CCI-SFP-045100	74.00 - 74.25	1.0000	1.0000
L35	84	CCI-SFP-040075	74.00 - 74.25	1.0000	1.0000
L36	2	FB-L98B-034-XXX(3/8)	73.75 - 74.00	1.0000	1.0000
L36	3	PWRT-608-S(13/16)	73.75 - 74.00	1.0000	1.0000
L36	4	PWRT-606-S(7/8)	73.75 - 74.00	1.0000	1.0000
L36	5	RFFT-48SM-001-XXX(3/8)	73.75 - 74.00	1.0000	1.0000
L36	7	7983A(ELLIPTICAL)	73.75 - 74.00	1.0000	1.0000
L36	12	CU12PSM9P6XXX(1-1/2)	73.75 - 74.00	1.0000	1.0000
L36	21	MLC HYBRID 6X12	73.75 - 74.00	1.0000	1.0000



Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L36	27	6AWGX6(1-1/2) Safety Line 3/8	73.75 - 74.00	1.0000	1.0000
L36	39	PL1.25x5.5 Reinforcement	73.75 - 74.00	1.0000	1.0000
L36	40	PL1.25x5.5 Reinforcement	73.75 - 74.00	1.0000	1.0000
L36	41	PL1.25x5.5 Reinforcement	73.75 - 74.00	1.0000	1.0000
L36	55	PL1x4 Reinforcement	73.75 - 74.00	1.0000	1.0000
L36	56	PL1x4 Reinforcement	73.75 - 74.00	1.0000	1.0000
L36	57	PL1x4 Reinforcement	73.75 - 74.00	1.0000	1.0000
L36	81	CCI-SFP-045100	73.75 - 74.00	1.0000	1.0000
L36	82	CCI-SFP-045100	73.75 - 74.00	1.0000	1.0000
L36	84	CCI-SFP-040075	73.75 - 74.00	1.0000	1.0000
L37	2	FB-L98B-034-XXX(3/8)	73.50 - 73.75	1.0000	1.0000
L37	3	PWRT-608-S(13/16)	73.50 - 73.75	1.0000	1.0000
L37	4	PWRT-606-S(7/8)	73.50 - 73.75	1.0000	1.0000
L37	5	RFFT-48SM-001-XXX(3/8)	73.50 - 73.75	1.0000	1.0000
L37	7	7983A(ELLIPTICAL)	73.50 - 73.75	1.0000	1.0000
L37	12	CU12PSM9P6XXX(1-1/2)	73.50 - 73.75	1.0000	1.0000
L37	21	MLC HYBRID 6X12	73.50 - 73.75	1.0000	1.0000
L37	27	6AWGX6(1-1/2) Safety Line 3/8	73.50 - 73.75	1.0000	1.0000
L37	39	PL1.25x5.5 Reinforcement	73.50 - 73.75	1.0000	1.0000
L37	40	PL1.25x5.5 Reinforcement	73.50 - 73.75	1.0000	1.0000
L37	41	PL1.25x5.5 Reinforcement	73.50 - 73.75	1.0000	1.0000
L37	55	PL1x4 Reinforcement	73.50 - 73.75	1.0000	1.0000
L37	56	PL1x4 Reinforcement	73.50 - 73.75	1.0000	1.0000
L37	57	PL1x4 Reinforcement	73.50 - 73.75	1.0000	1.0000
L37	81	CCI-SFP-045100	73.50 - 73.75	1.0000	1.0000
L37	82	CCI-SFP-045100	73.50 - 73.75	1.0000	1.0000
L37	84	CCI-SFP-040075	73.50 - 73.75	1.0000	1.0000
L38	2	FB-L98B-034-XXX(3/8)	68.50 - 73.50	1.0000	1.0000
L38	3	PWRT-608-S(13/16)	68.50 - 73.50	1.0000	1.0000
L38	4	PWRT-606-S(7/8)	68.50 - 73.50	1.0000	1.0000
L38	5	RFFT-48SM-001-XXX(3/8)	68.50 - 73.50	1.0000	1.0000
L38	7	7983A(ELLIPTICAL)	68.50 - 73.50	1.0000	1.0000
L38	12	CU12PSM9P6XXX(1-1/2)	68.50 - 73.50	1.0000	1.0000
L38	21	MLC HYBRID 6X12	68.50 - 73.50	1.0000	1.0000
L38	27	6AWGX6(1-1/2) Safety Line 3/8	68.50 - 73.50	1.0000	1.0000
L38	39	PL1.25x5.5 Reinforcement	68.50 - 73.50	1.0000	1.0000
L38	40	PL1.25x5.5 Reinforcement	68.50 - 73.50	1.0000	1.0000
L38	41	PL1.25x5.5 Reinforcement	68.50 - 73.50	1.0000	1.0000
L38	55	PL1x4 Reinforcement	68.50 - 73.50	1.0000	1.0000
L38	56	PL1x4 Reinforcement	68.50 - 73.50	1.0000	1.0000
L38	57	PL1x4 Reinforcement	68.50 - 73.50	1.0000	1.0000
L38	81	CCI-SFP-045100	68.50 - 73.50	1.0000	1.0000
L38	82	CCI-SFP-045100	68.50 - 73.50	1.0000	1.0000
L38	84	CCI-SFP-040075	68.50 - 73.50	1.0000	1.0000
L39	2	FB-L98B-034-XXX(3/8)	63.50 - 68.50	1.0000	1.0000
L39	3	PWRT-608-S(13/16)	63.50 - 68.50	1.0000	1.0000
L39	4	PWRT-606-S(7/8)	63.50 - 68.50	1.0000	1.0000
L39	5	RFFT-48SM-001-XXX(3/8)	63.50 - 68.50	1.0000	1.0000
L39	7	7983A(ELLIPTICAL)	63.50 - 68.50	1.0000	1.0000
L39	12	CU12PSM9P6XXX(1-1/2)	63.50 - 68.50	1.0000	1.0000
L39	21	MLC HYBRID 6X12	63.50 - 68.50	1.0000	1.0000
L39	27	6AWGX6(1-1/2) Safety Line 3/8	63.50 - 68.50	1.0000	1.0000
L39	39	PL1.25x5.5 Reinforcement	63.50 - 68.50	1.0000	1.0000
L39	40	PL1.25x5.5 Reinforcement	63.50 - 68.50	1.0000	1.0000
L39	41	PL1.25x5.5 Reinforcement	63.50 - 68.50	1.0000	1.0000
L39	55	PL1x4 Reinforcement	63.50 - 68.50	1.0000	1.0000
L39	56	PL1x4 Reinforcement	63.50 - 68.50	1.0000	1.0000
L39	57	PL1x4 Reinforcement	63.50 - 68.50	1.0000	1.0000

# tnxTower

**B+T Group**  
1717 S. Boulder, Suite 300  
Tulsa, OK 74119  
Phone: (918) 587-4630  
FAX: (918) 295-0265

**Job**  
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**Project**  
**Date**  
16:40:32 05/09/22

**Client**  
Crown Castle  
**Designed by**  
Jayaraj B

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L39	81	CCI-SFP-045100	63.50 - 68.50	1.0000	1.0000
L39	82	CCI-SFP-045100	63.50 - 68.50	1.0000	1.0000
L39	84	CCI-SFP-040075	63.50 - 68.50	1.0000	1.0000
L40	2	FB-L98B-034-XXX(3/8)	60.50 - 63.50	1.0000	1.0000
L40	3	PWRT-608-S(13/16)	60.50 - 63.50	1.0000	1.0000
L40	4	PWRT-606-S(7/8)	60.50 - 63.50	1.0000	1.0000
L40	5	RFFT-48SM-001-XXX(3/8)	60.50 - 63.50	1.0000	1.0000
L40	7	7983A(ELLIPTICAL)	60.50 - 63.50	1.0000	1.0000
L40	12	CU12PSM9P6XXX(1-1/2)	60.50 - 63.50	1.0000	1.0000
L40	21	MLC HYBRID 6X12	60.50 - 63.50	1.0000	1.0000
		6AWGX6(1-1/2)			
L40	27	Safety Line 3/8	60.50 - 63.50	1.0000	1.0000
L40	39	PL1.25x5.5 Reinforcement	60.50 - 63.50	1.0000	1.0000
L40	40	PL1.25x5.5 Reinforcement	60.50 - 63.50	1.0000	1.0000
L40	41	PL1.25x5.5 Reinforcement	60.50 - 63.50	1.0000	1.0000
L40	51	PL1x4 Reinforcement	60.50 - 62.25	1.0000	1.0000
L40	52	PL1x4 Reinforcement	60.50 - 62.25	1.0000	1.0000
L40	53	PL1x4 Reinforcement	60.50 - 62.25	1.0000	1.0000
L40	55	PL1x4 Reinforcement	60.50 - 63.50	1.0000	1.0000
L40	56	PL1x4 Reinforcement	60.50 - 63.50	1.0000	1.0000
L40	57	PL1x4 Reinforcement	60.50 - 63.50	1.0000	1.0000
L40	81	CCI-SFP-045100	60.50 - 63.50	1.0000	1.0000
L40	82	CCI-SFP-045100	60.50 - 63.50	1.0000	1.0000
L40	84	CCI-SFP-040075	60.50 - 63.50	1.0000	1.0000
L41	2	FB-L98B-034-XXX(3/8)	60.25 - 60.50	1.0000	1.0000
L41	3	PWRT-608-S(13/16)	60.25 - 60.50	1.0000	1.0000
L41	4	PWRT-606-S(7/8)	60.25 - 60.50	1.0000	1.0000
L41	5	RFFT-48SM-001-XXX(3/8)	60.25 - 60.50	1.0000	1.0000
L41	7	7983A(ELLIPTICAL)	60.25 - 60.50	1.0000	1.0000
L41	12	CU12PSM9P6XXX(1-1/2)	60.25 - 60.50	1.0000	1.0000
L41	21	MLC HYBRID 6X12	60.25 - 60.50	1.0000	1.0000
		6AWGX6(1-1/2)			
L41	27	Safety Line 3/8	60.25 - 60.50	1.0000	1.0000
L41	39	PL1.25x5.5 Reinforcement	60.25 - 60.50	1.0000	1.0000
L41	40	PL1.25x5.5 Reinforcement	60.25 - 60.50	1.0000	1.0000
L41	41	PL1.25x5.5 Reinforcement	60.25 - 60.50	1.0000	1.0000
L41	51	PL1x4 Reinforcement	60.25 - 60.50	1.0000	1.0000
L41	52	PL1x4 Reinforcement	60.25 - 60.50	1.0000	1.0000
L41	53	PL1x4 Reinforcement	60.25 - 60.50	1.0000	1.0000
L41	55	PL1x4 Reinforcement	60.25 - 60.50	1.0000	1.0000
L41	56	PL1x4 Reinforcement	60.25 - 60.50	1.0000	1.0000
L41	57	PL1x4 Reinforcement	60.25 - 60.50	1.0000	1.0000
L41	81	CCI-SFP-045100	60.25 - 60.50	1.0000	1.0000
L41	82	CCI-SFP-045100	60.25 - 60.50	1.0000	1.0000
L41	84	CCI-SFP-040075	60.25 - 60.50	1.0000	1.0000
L42	2	FB-L98B-034-XXX(3/8)	59.50 - 60.25	1.0000	1.0000
L42	3	PWRT-608-S(13/16)	59.50 - 60.25	1.0000	1.0000
L42	4	PWRT-606-S(7/8)	59.50 - 60.25	1.0000	1.0000
L42	5	RFFT-48SM-001-XXX(3/8)	59.50 - 60.25	1.0000	1.0000
L42	7	7983A(ELLIPTICAL)	59.50 - 60.25	1.0000	1.0000
L42	12	CU12PSM9P6XXX(1-1/2)	59.50 - 60.25	1.0000	1.0000
L42	21	MLC HYBRID 6X12	59.50 - 60.25	1.0000	1.0000
		6AWGX6(1-1/2)			
L42	27	Safety Line 3/8	59.50 - 60.25	1.0000	1.0000
L42	39	PL1.25x5.5 Reinforcement	59.50 - 60.25	1.0000	1.0000
L42	40	PL1.25x5.5 Reinforcement	59.50 - 60.25	1.0000	1.0000
L42	41	PL1.25x5.5 Reinforcement	59.50 - 60.25	1.0000	1.0000
L42	51	PL1x4 Reinforcement	59.50 - 60.25	1.0000	1.0000
L42	52	PL1x4 Reinforcement	59.50 - 60.25	1.0000	1.0000
L42	53	PL1x4 Reinforcement	59.50 - 60.25	1.0000	1.0000
L42	55	PL1x4 Reinforcement	59.50 - 60.25	1.0000	1.0000
L42	56	PL1x4 Reinforcement	59.50 - 60.25	1.0000	1.0000

# tnxTower

**B+T Group**  
1717 S. Boulder, Suite 300  
Tulsa, OK 74119  
Phone: (918) 587-4630  
FAX: (918) 295-0265

**Job**  
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**Project**  
**Date**  
16:40:32 05/09/22

**Client**  
Crown Castle  
**Designed by**  
Jayaraj B

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	$K_a$ No Ice	$K_a$ Ice
L42	57	PL1x4 Reinforcement	59.50 - 60.25	1.0000	1.0000
L42	81	CCI-SFP-045100	59.50 - 60.25	1.0000	1.0000
L42	82	CCI-SFP-045100	59.50 - 60.25	1.0000	1.0000
L42	84	CCI-SFP-040075	59.50 - 60.25	1.0000	1.0000
L43	2	FB-L98B-034-XXX(3/8)	59.25 - 59.50	1.0000	1.0000
L43	3	PWRT-608-S(13/16)	59.25 - 59.50	1.0000	1.0000
L43	4	PWRT-606-S(7/8)	59.25 - 59.50	1.0000	1.0000
L43	5	RFFT-48SM-001-XXX(3/8)	59.25 - 59.50	1.0000	1.0000
L43	7	7983A(ELLIPTICAL)	59.25 - 59.50	1.0000	1.0000
L43	12	CU12PSM9P6XXX(1-1/2)	59.25 - 59.50	1.0000	1.0000
L43	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	59.25 - 59.50	1.0000	1.0000
L43	27	Safety Line 3/8	59.25 - 59.50	1.0000	1.0000
L43	35	PL1.25x6.625 Reinforcement	59.25 - 59.50	1.0000	1.0000
L43	36	PL1.25x6.625 Reinforcement	59.25 - 59.50	1.0000	1.0000
L43	37	PL1.25x6.625 Reinforcement	59.25 - 59.50	1.0000	1.0000
L43	51	PL1x4 Reinforcement	59.25 - 59.50	1.0000	1.0000
L43	52	PL1x4 Reinforcement	59.25 - 59.50	1.0000	1.0000
L43	53	PL1x4 Reinforcement	59.25 - 59.50	1.0000	1.0000
L43	55	PL1x4 Reinforcement	59.25 - 59.50	1.0000	1.0000
L43	56	PL1x4 Reinforcement	59.25 - 59.50	1.0000	1.0000
L43	57	PL1x4 Reinforcement	59.25 - 59.50	1.0000	1.0000
L43	81	CCI-SFP-045100	59.25 - 59.50	1.0000	1.0000
L43	82	CCI-SFP-045100	59.25 - 59.50	1.0000	1.0000
L43	84	CCI-SFP-040075	59.25 - 59.50	1.0000	1.0000
L44	2	FB-L98B-034-XXX(3/8)	54.25 - 59.25	1.0000	1.0000
L44	3	PWRT-608-S(13/16)	54.25 - 59.25	1.0000	1.0000
L44	4	PWRT-606-S(7/8)	54.25 - 59.25	1.0000	1.0000
L44	5	RFFT-48SM-001-XXX(3/8)	54.25 - 59.25	1.0000	1.0000
L44	7	7983A(ELLIPTICAL)	54.25 - 59.25	1.0000	1.0000
L44	12	CU12PSM9P6XXX(1-1/2)	54.25 - 59.25	1.0000	1.0000
L44	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	54.25 - 59.25	1.0000	1.0000
L44	27	Safety Line 3/8	54.25 - 59.25	1.0000	1.0000
L44	35	PL1.25x6.625 Reinforcement	54.25 - 59.25	1.0000	1.0000
L44	36	PL1.25x6.625 Reinforcement	54.25 - 59.25	1.0000	1.0000
L44	37	PL1.25x6.625 Reinforcement	54.25 - 59.25	1.0000	1.0000
L44	51	PL1x4 Reinforcement	54.25 - 59.25	1.0000	1.0000
L44	52	PL1x4 Reinforcement	54.25 - 59.25	1.0000	1.0000
L44	53	PL1x4 Reinforcement	54.25 - 59.25	1.0000	1.0000
L44	55	PL1x4 Reinforcement	58.75 - 59.25	1.0000	1.0000
L44	56	PL1x4 Reinforcement	58.75 - 59.25	1.0000	1.0000
L44	57	PL1x4 Reinforcement	58.75 - 59.25	1.0000	1.0000
L44	81	CCI-SFP-045100	54.25 - 59.25	1.0000	1.0000
L44	82	CCI-SFP-045100	54.25 - 59.25	1.0000	1.0000
L44	84	CCI-SFP-040075	54.25 - 59.25	1.0000	1.0000
L45	2	FB-L98B-034-XXX(3/8)	45.80 - 54.25	1.0000	1.0000
L45	3	PWRT-608-S(13/16)	45.80 - 54.25	1.0000	1.0000
L45	4	PWRT-606-S(7/8)	45.80 - 54.25	1.0000	1.0000
L45	5	RFFT-48SM-001-XXX(3/8)	45.80 - 54.25	1.0000	1.0000
L45	7	7983A(ELLIPTICAL)	45.80 - 54.25	1.0000	1.0000
L45	12	CU12PSM9P6XXX(1-1/2)	45.80 - 54.25	1.0000	1.0000
L45	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	45.80 - 54.25	1.0000	1.0000
L45	27	Safety Line 3/8	45.80 - 54.25	1.0000	1.0000
L45	35	PL1.25x6.625 Reinforcement	45.80 - 54.25	1.0000	1.0000
L45	36	PL1.25x6.625 Reinforcement	45.80 - 54.25	1.0000	1.0000
L45	37	PL1.25x6.625 Reinforcement	45.80 - 54.25	1.0000	1.0000
L45	51	PL1x4 Reinforcement	45.80 - 54.25	1.0000	1.0000
L45	52	PL1x4 Reinforcement	45.80 - 54.25	1.0000	1.0000
L45	53	PL1x4 Reinforcement	45.80 - 54.25	1.0000	1.0000
L45	81	CCI-SFP-045100	45.80 - 54.25	1.0000	1.0000

# tnxTower

**B+T Group**  
1717 S. Boulder, Suite 300  
Tulsa, OK 74119  
Phone: (918) 587-4630  
FAX: (918) 295-0265

**Job**  
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**Client**  
Crown Castle  
**Designed by**  
Jayaraj B

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L45	82	CCI-SFP-045100	45.80 - 54.25	1.0000	1.0000
L45	84	CCI-SFP-040075	45.80 - 54.25	1.0000	1.0000
L46	2	FB-L98B-034-XXX(3/8)	44.80 - 45.80	1.0000	1.0000
L46	3	PWRT-608-S(13/16)	44.80 - 45.80	1.0000	1.0000
L46	4	PWRT-606-S(7/8)	44.80 - 45.80	1.0000	1.0000
L46	5	RFFT-48SM-001-XXX(3/8)	44.80 - 45.80	1.0000	1.0000
L46	7	7983A(ELLIPTICAL)	44.80 - 45.80	1.0000	1.0000
L46	12	CU12PSM9P6XXX(1-1/2)	44.80 - 45.80	1.0000	1.0000
L46	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	44.80 - 45.80	1.0000	1.0000
L46	27	Safety Line 3/8	44.80 - 45.80	1.0000	1.0000
L46	35	PL1.25x6.625 Reinforcement	44.80 - 45.80	1.0000	1.0000
L46	36	PL1.25x6.625 Reinforcement	44.80 - 45.80	1.0000	1.0000
L46	37	PL1.25x6.625 Reinforcement	44.80 - 45.80	1.0000	1.0000
L46	51	PL1x4 Reinforcement	44.80 - 45.80	1.0000	1.0000
L46	52	PL1x4 Reinforcement	44.80 - 45.80	1.0000	1.0000
L46	53	PL1x4 Reinforcement	44.80 - 45.80	1.0000	1.0000
L46	76	CCI-SFP-045100	44.80 - 45.08	1.0000	1.0000
L46	78	CCI-SFP-060100	44.80 - 45.17	1.0000	1.0000
L46	79	CCI-SFP-060100	44.80 - 45.17	1.0000	1.0000
L46	81	CCI-SFP-045100	45.25 - 45.80	1.0000	1.0000
L46	82	CCI-SFP-045100	45.25 - 45.80	1.0000	1.0000
L46	84	CCI-SFP-040075	45.25 - 45.80	1.0000	1.0000
L47	2	FB-L98B-034-XXX(3/8)	43.58 - 44.80	1.0000	1.0000
L47	3	PWRT-608-S(13/16)	43.58 - 44.80	1.0000	1.0000
L47	4	PWRT-606-S(7/8)	43.58 - 44.80	1.0000	1.0000
L47	5	RFFT-48SM-001-XXX(3/8)	43.58 - 44.80	1.0000	1.0000
L47	7	7983A(ELLIPTICAL)	43.58 - 44.80	1.0000	1.0000
L47	12	CU12PSM9P6XXX(1-1/2)	43.58 - 44.80	1.0000	1.0000
L47	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	43.58 - 44.80	1.0000	1.0000
L47	27	Safety Line 3/8	43.58 - 44.80	1.0000	1.0000
L47	35	PL1.25x6.625 Reinforcement	43.58 - 44.80	1.0000	1.0000
L47	36	PL1.25x6.625 Reinforcement	43.58 - 44.80	1.0000	1.0000
L47	37	PL1.25x6.625 Reinforcement	43.58 - 44.80	1.0000	1.0000
L47	51	PL1x4 Reinforcement	43.58 - 44.80	1.0000	1.0000
L47	52	PL1x4 Reinforcement	43.58 - 44.80	1.0000	1.0000
L47	53	PL1x4 Reinforcement	43.58 - 44.80	1.0000	1.0000
L47	76	CCI-SFP-045100	43.58 - 44.80	1.0000	1.0000
L47	78	CCI-SFP-060100	43.58 - 44.80	1.0000	1.0000
L47	79	CCI-SFP-060100	43.58 - 44.80	1.0000	1.0000
L48	2	FB-L98B-034-XXX(3/8)	43.33 - 43.58	1.0000	1.0000
L48	3	PWRT-608-S(13/16)	43.33 - 43.58	1.0000	1.0000
L48	4	PWRT-606-S(7/8)	43.33 - 43.58	1.0000	1.0000
L48	5	RFFT-48SM-001-XXX(3/8)	43.33 - 43.58	1.0000	1.0000
L48	7	7983A(ELLIPTICAL)	43.33 - 43.58	1.0000	1.0000
L48	12	CU12PSM9P6XXX(1-1/2)	43.33 - 43.58	1.0000	1.0000
L48	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	43.33 - 43.58	1.0000	1.0000
L48	27	Safety Line 3/8	43.33 - 43.58	1.0000	1.0000
L48	35	PL1.25x6.625 Reinforcement	43.33 - 43.58	1.0000	1.0000
L48	36	PL1.25x6.625 Reinforcement	43.33 - 43.58	1.0000	1.0000
L48	37	PL1.25x6.625 Reinforcement	43.33 - 43.58	1.0000	1.0000
L48	51	PL1x4 Reinforcement	43.33 - 43.58	1.0000	1.0000
L48	52	PL1x4 Reinforcement	43.33 - 43.58	1.0000	1.0000
L48	53	PL1x4 Reinforcement	43.33 - 43.58	1.0000	1.0000
L48	76	CCI-SFP-045100	43.33 - 43.58	1.0000	1.0000
L48	78	CCI-SFP-060100	43.33 - 43.58	1.0000	1.0000
L48	79	CCI-SFP-060100	43.33 - 43.58	1.0000	1.0000
L49	2	FB-L98B-034-XXX(3/8)	43.17 - 43.33	1.0000	1.0000
L49	3	PWRT-608-S(13/16)	43.17 - 43.33	1.0000	1.0000
L49	4	PWRT-606-S(7/8)	43.17 - 43.33	1.0000	1.0000

# tnxTower

**B+T Group**  
1717 S. Boulder, Suite 300  
Tulsa, OK 74119  
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79982.012.01 - WATERBURY,CT (BU# 876317)

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**Project**  
**Date**  
16:40:32 05/09/22

**Client**  
Crown Castle  
**Designed by**  
Jayaraj B

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L49	5	RFFT-48SM-001-XXX(3/8)	43.17 - 43.33	1.0000	1.0000
L49	7	7983A(ELLIPTICAL)	43.17 - 43.33	1.0000	1.0000
L49	12	CU12PSM9P6XXX(1-1/2)	43.17 - 43.33	1.0000	1.0000
L49	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	43.17 - 43.33	1.0000	1.0000
L49	27	Safety Line 3/8	43.17 - 43.33	1.0000	1.0000
L49	35	PL1.25x6.625 Reinforcement	43.17 - 43.33	1.0000	1.0000
L49	36	PL1.25x6.625 Reinforcement	43.17 - 43.33	1.0000	1.0000
L49	37	PL1.25x6.625 Reinforcement	43.17 - 43.33	1.0000	1.0000
L49	51	PL1x4 Reinforcement	43.17 - 43.33	1.0000	1.0000
L49	52	PL1x4 Reinforcement	43.17 - 43.33	1.0000	1.0000
L49	53	PL1x4 Reinforcement	43.17 - 43.33	1.0000	1.0000
L49	76	CCI-SFP-045100	43.17 - 43.33	1.0000	1.0000
L49	78	CCI-SFP-060100	43.17 - 43.33	1.0000	1.0000
L49	79	CCI-SFP-060100	43.17 - 43.33	1.0000	1.0000
L50	2	FB-L98B-034-XXX(3/8)	42.92 - 43.17	1.0000	1.0000
L50	3	PWRT-608-S(13/16)	42.92 - 43.17	1.0000	1.0000
L50	4	PWRT-606-S(7/8)	42.92 - 43.17	1.0000	1.0000
L50	5	RFFT-48SM-001-XXX(3/8)	42.92 - 43.17	1.0000	1.0000
L50	7	7983A(ELLIPTICAL)	42.92 - 43.17	1.0000	1.0000
L50	12	CU12PSM9P6XXX(1-1/2)	42.92 - 43.17	1.0000	1.0000
L50	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	42.92 - 43.17	1.0000	1.0000
L50	27	Safety Line 3/8	42.92 - 43.17	1.0000	1.0000
L50	35	PL1.25x6.625 Reinforcement	42.92 - 43.17	1.0000	1.0000
L50	36	PL1.25x6.625 Reinforcement	42.92 - 43.17	1.0000	1.0000
L50	37	PL1.25x6.625 Reinforcement	42.92 - 43.17	1.0000	1.0000
L50	51	PL1x4 Reinforcement	42.92 - 43.17	1.0000	1.0000
L50	52	PL1x4 Reinforcement	42.92 - 43.17	1.0000	1.0000
L50	53	PL1x4 Reinforcement	42.92 - 43.17	1.0000	1.0000
L50	76	CCI-SFP-045100	42.92 - 43.17	1.0000	1.0000
L50	78	CCI-SFP-060100	42.92 - 43.17	1.0000	1.0000
L50	79	CCI-SFP-060100	42.92 - 43.17	1.0000	1.0000
L51	2	FB-L98B-034-XXX(3/8)	39.00 - 42.92	1.0000	1.0000
L51	3	PWRT-608-S(13/16)	39.00 - 42.92	1.0000	1.0000
L51	4	PWRT-606-S(7/8)	39.00 - 42.92	1.0000	1.0000
L51	5	RFFT-48SM-001-XXX(3/8)	39.00 - 42.92	1.0000	1.0000
L51	7	7983A(ELLIPTICAL)	39.00 - 42.92	1.0000	1.0000
L51	12	CU12PSM9P6XXX(1-1/2)	39.00 - 42.92	1.0000	1.0000
L51	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	39.00 - 42.92	1.0000	1.0000
L51	27	Safety Line 3/8	39.00 - 42.92	1.0000	1.0000
L51	35	PL1.25x6.625 Reinforcement	39.00 - 42.92	1.0000	1.0000
L51	36	PL1.25x6.625 Reinforcement	39.00 - 42.92	1.0000	1.0000
L51	37	PL1.25x6.625 Reinforcement	39.00 - 42.92	1.0000	1.0000
L51	49	PL1x4 Reinforcement	39.00 - 40.75	1.0000	1.0000
L51	51	PL1x4 Reinforcement	39.00 - 42.92	1.0000	1.0000
L51	52	PL1x4 Reinforcement	39.00 - 42.92	1.0000	1.0000
L51	53	PL1x4 Reinforcement	39.00 - 42.92	1.0000	1.0000
L51	76	CCI-SFP-045100	39.00 - 42.92	1.0000	1.0000
L51	78	CCI-SFP-060100	39.00 - 42.92	1.0000	1.0000
L51	79	CCI-SFP-060100	39.00 - 42.92	1.0000	1.0000
L52	2	FB-L98B-034-XXX(3/8)	38.75 - 39.00	1.0000	1.0000
L52	3	PWRT-608-S(13/16)	38.75 - 39.00	1.0000	1.0000
L52	4	PWRT-606-S(7/8)	38.75 - 39.00	1.0000	1.0000
L52	5	RFFT-48SM-001-XXX(3/8)	38.75 - 39.00	1.0000	1.0000
L52	7	7983A(ELLIPTICAL)	38.75 - 39.00	1.0000	1.0000
L52	12	CU12PSM9P6XXX(1-1/2)	38.75 - 39.00	1.0000	1.0000
L52	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	38.75 - 39.00	1.0000	1.0000
L52	27	Safety Line 3/8	38.75 - 39.00	1.0000	1.0000
L52	35	PL1.25x6.625 Reinforcement	38.75 - 39.00	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L52	36	PL1.25x6.625 Reinforcement	38.75 - 39.00	1.0000	1.0000
L52	37	PL1.25x6.625 Reinforcement	38.75 - 39.00	1.0000	1.0000
L52	49	PL1x4 Reinforcement	38.75 - 39.00	1.0000	1.0000
L52	51	PL1x4 Reinforcement	38.75 - 39.00	1.0000	1.0000
L52	52	PL1x4 Reinforcement	38.75 - 39.00	1.0000	1.0000
L52	53	PL1x4 Reinforcement	38.75 - 39.00	1.0000	1.0000
L52	76	CCI-SFP-045100	38.75 - 39.00	1.0000	1.0000
L52	78	CCI-SFP-060100	38.75 - 39.00	1.0000	1.0000
L52	79	CCI-SFP-060100	38.75 - 39.00	1.0000	1.0000
L53	2	FB-L98B-034-XXX(3/8)	37.17 - 38.75	1.0000	1.0000
L53	3	PWRT-608-S(13/16)	37.17 - 38.75	1.0000	1.0000
L53	4	PWRT-606-S(7/8)	37.17 - 38.75	1.0000	1.0000
L53	5	RFFT-48SM-001-XXX(3/8)	37.17 - 38.75	1.0000	1.0000
L53	7	7983A(ELLIPTICAL)	37.17 - 38.75	1.0000	1.0000
L53	12	CU12PSM9P6XXX(1-1/2)	37.17 - 38.75	1.0000	1.0000
L53	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	37.17 - 38.75	1.0000	1.0000
L53	27	Safety Line 3/8	37.17 - 38.75	1.0000	1.0000
L53	35	PL1.25x6.625 Reinforcement	37.17 - 38.75	1.0000	1.0000
L53	36	PL1.25x6.625 Reinforcement	37.17 - 38.75	1.0000	1.0000
L53	37	PL1.25x6.625 Reinforcement	37.17 - 38.75	1.0000	1.0000
L53	49	PL1x4 Reinforcement	37.17 - 38.75	1.0000	1.0000
L53	51	PL1x4 Reinforcement	37.17 - 38.75	1.0000	1.0000
L53	52	PL1x4 Reinforcement	37.17 - 38.75	1.0000	1.0000
L53	53	PL1x4 Reinforcement	37.17 - 38.75	1.0000	1.0000
L53	76	CCI-SFP-045100	37.17 - 38.75	1.0000	1.0000
L53	78	CCI-SFP-060100	37.17 - 38.75	1.0000	1.0000
L53	79	CCI-SFP-060100	37.17 - 38.75	1.0000	1.0000
L54	2	FB-L98B-034-XXX(3/8)	36.92 - 37.17	1.0000	1.0000
L54	3	PWRT-608-S(13/16)	36.92 - 37.17	1.0000	1.0000
L54	4	PWRT-606-S(7/8)	36.92 - 37.17	1.0000	1.0000
L54	5	RFFT-48SM-001-XXX(3/8)	36.92 - 37.17	1.0000	1.0000
L54	7	7983A(ELLIPTICAL)	36.92 - 37.17	1.0000	1.0000
L54	12	CU12PSM9P6XXX(1-1/2)	36.92 - 37.17	1.0000	1.0000
L54	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	36.92 - 37.17	1.0000	1.0000
L54	27	Safety Line 3/8	36.92 - 37.17	1.0000	1.0000
L54	35	PL1.25x6.625 Reinforcement	36.92 - 37.17	1.0000	1.0000
L54	36	PL1.25x6.625 Reinforcement	36.92 - 37.17	1.0000	1.0000
L54	37	PL1.25x6.625 Reinforcement	36.92 - 37.17	1.0000	1.0000
L54	49	PL1x4 Reinforcement	36.92 - 37.17	1.0000	1.0000
L54	51	PL1x4 Reinforcement	36.92 - 37.17	1.0000	1.0000
L54	52	PL1x4 Reinforcement	36.92 - 37.17	1.0000	1.0000
L54	53	PL1x4 Reinforcement	36.92 - 37.17	1.0000	1.0000
L54	76	CCI-SFP-045100	36.92 - 37.17	1.0000	1.0000
L54	78	CCI-SFP-060100	36.92 - 37.17	1.0000	1.0000
L54	79	CCI-SFP-060100	36.92 - 37.17	1.0000	1.0000
L55	2	FB-L98B-034-XXX(3/8)	34.00 - 36.92	1.0000	1.0000
L55	3	PWRT-608-S(13/16)	34.00 - 36.92	1.0000	1.0000
L55	4	PWRT-606-S(7/8)	34.00 - 36.92	1.0000	1.0000
L55	5	RFFT-48SM-001-XXX(3/8)	34.00 - 36.92	1.0000	1.0000
L55	7	7983A(ELLIPTICAL)	34.00 - 36.92	1.0000	1.0000
L55	12	CU12PSM9P6XXX(1-1/2)	34.00 - 36.92	1.0000	1.0000
L55	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	34.00 - 36.92	1.0000	1.0000
L55	27	Safety Line 3/8	34.00 - 36.92	1.0000	1.0000
L55	35	PL1.25x6.625 Reinforcement	34.00 - 36.92	1.0000	1.0000
L55	36	PL1.25x6.625 Reinforcement	34.00 - 36.92	1.0000	1.0000
L55	37	PL1.25x6.625 Reinforcement	34.00 - 36.92	1.0000	1.0000
L55	47	PL1x4 Reinforcement	34.00 - 35.75	1.0000	1.0000
L55	48	PL1x4 Reinforcement	34.00 - 35.75	1.0000	1.0000
L55	49	PL1x4 Reinforcement	34.00 - 36.92	1.0000	1.0000



**tnxTower**

**B+T Group**  
 1717 S. Boulder, Suite 300  
 Tulsa, OK 74119  
 Phone: (918) 587-4630  
 FAX: (918) 295-0265

**Job**  
 79982.012.01 - WATERBURY,CT (BU# 876317)

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**Project**  
 Date  
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**Client**  
 Crown Castle  
 Designed by  
 Jayaraj B

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	$K_a$ No Ice	$K_a$ Ice
L55	51	PL1x4 Reinforcement	34.00 - 36.92	1.0000	1.0000
L55	52	PL1x4 Reinforcement	34.00 - 36.92	1.0000	1.0000
L55	53	PL1x4 Reinforcement	34.00 - 36.92	1.0000	1.0000
L55	72	CCI-SFP-045100	34.00 - 35.08	1.0000	1.0000
L55	74	CCI-SFP-045100	34.00 - 35.08	1.0000	1.0000
L55	76	CCI-SFP-045100	34.00 - 36.92	1.0000	1.0000
L55	78	CCI-SFP-060100	35.17 - 36.92	1.0000	1.0000
L55	79	CCI-SFP-060100	35.17 - 36.92	1.0000	1.0000
L56	2	FB-L98B-034-XXX(3/8)	33.75 - 34.00	1.0000	1.0000
L56	3	PWRT-608-S(13/16)	33.75 - 34.00	1.0000	1.0000
L56	4	PWRT-606-S(7/8)	33.75 - 34.00	1.0000	1.0000
L56	5	RFFT-48SM-001-XXX(3/8)	33.75 - 34.00	1.0000	1.0000
L56	7	7983A(ELLIPTICAL)	33.75 - 34.00	1.0000	1.0000
L56	12	CU12PSM9P6XXX(1-1/2)	33.75 - 34.00	1.0000	1.0000
L56	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	33.75 - 34.00	1.0000	1.0000
L56	27	Safety Line 3/8	33.75 - 34.00	1.0000	1.0000
L56	35	PL1.25x6.625 Reinforcement	33.75 - 34.00	1.0000	1.0000
L56	36	PL1.25x6.625 Reinforcement	33.75 - 34.00	1.0000	1.0000
L56	37	PL1.25x6.625 Reinforcement	33.75 - 34.00	1.0000	1.0000
L56	47	PL1x4 Reinforcement	33.75 - 34.00	1.0000	1.0000
L56	48	PL1x4 Reinforcement	33.75 - 34.00	1.0000	1.0000
L56	49	PL1x4 Reinforcement	33.75 - 34.00	1.0000	1.0000
L56	51	PL1x4 Reinforcement	33.75 - 34.00	1.0000	1.0000
L56	52	PL1x4 Reinforcement	33.75 - 34.00	1.0000	1.0000
L56	53	PL1x4 Reinforcement	33.75 - 34.00	1.0000	1.0000
L56	72	CCI-SFP-045100	33.75 - 34.00	1.0000	1.0000
L56	74	CCI-SFP-045100	33.75 - 34.00	1.0000	1.0000
L56	76	CCI-SFP-045100	33.75 - 34.00	1.0000	1.0000
L57	2	FB-L98B-034-XXX(3/8)	29.75 - 33.75	1.0000	1.0000
L57	3	PWRT-608-S(13/16)	29.75 - 33.75	1.0000	1.0000
L57	4	PWRT-606-S(7/8)	29.75 - 33.75	1.0000	1.0000
L57	5	RFFT-48SM-001-XXX(3/8)	29.75 - 33.75	1.0000	1.0000
L57	7	7983A(ELLIPTICAL)	29.75 - 33.75	1.0000	1.0000
L57	12	CU12PSM9P6XXX(1-1/2)	29.75 - 33.75	1.0000	1.0000
L57	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	29.75 - 33.75	1.0000	1.0000
L57	27	Safety Line 3/8	29.75 - 33.75	1.0000	1.0000
L57	35	PL1.25x6.625 Reinforcement	29.75 - 33.75	1.0000	1.0000
L57	36	PL1.25x6.625 Reinforcement	29.75 - 33.75	1.0000	1.0000
L57	37	PL1.25x6.625 Reinforcement	29.75 - 33.75	1.0000	1.0000
L57	47	PL1x4 Reinforcement	29.75 - 33.75	1.0000	1.0000
L57	48	PL1x4 Reinforcement	29.75 - 33.75	1.0000	1.0000
L57	49	PL1x4 Reinforcement	29.75 - 33.75	1.0000	1.0000
L57	51	PL1x4 Reinforcement	32.25 - 33.75	1.0000	1.0000
L57	52	PL1x4 Reinforcement	32.25 - 33.75	1.0000	1.0000
L57	53	PL1x4 Reinforcement	32.25 - 33.75	1.0000	1.0000
L57	72	CCI-SFP-045100	29.75 - 33.75	1.0000	1.0000
L57	74	CCI-SFP-045100	29.75 - 33.75	1.0000	1.0000
L57	76	CCI-SFP-045100	29.75 - 33.75	1.0000	1.0000
L58	2	FB-L98B-034-XXX(3/8)	29.50 - 29.75	1.0000	1.0000
L58	3	PWRT-608-S(13/16)	29.50 - 29.75	1.0000	1.0000
L58	4	PWRT-606-S(7/8)	29.50 - 29.75	1.0000	1.0000
L58	5	RFFT-48SM-001-XXX(3/8)	29.50 - 29.75	1.0000	1.0000
L58	7	7983A(ELLIPTICAL)	29.50 - 29.75	1.0000	1.0000
L58	12	CU12PSM9P6XXX(1-1/2)	29.50 - 29.75	1.0000	1.0000
L58	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	29.50 - 29.75	1.0000	1.0000
L58	27	Safety Line 3/8	29.50 - 29.75	1.0000	1.0000
L58	29	PL1.25x6.875 Reinforcement	29.50 - 29.75	1.0000	1.0000
L58	30	PL1.25x6.875 Reinforcement	29.50 - 29.75	1.0000	1.0000
L58	31	PL1.25x6.875 Reinforcement	29.50 - 29.75	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L58	47	PL1x4 Reinforcement	29.50 - 29.75	1.0000	1.0000
L58	48	PL1x4 Reinforcement	29.50 - 29.75	1.0000	1.0000
L58	49	PL1x4 Reinforcement	29.50 - 29.75	1.0000	1.0000
L58	72	CCI-SFP-045100	29.50 - 29.75	1.0000	1.0000
L58	74	CCI-SFP-045100	29.50 - 29.75	1.0000	1.0000
L58	76	CCI-SFP-045100	29.50 - 29.75	1.0000	1.0000
L59	2	FB-L98B-034-XXX(3/8)	24.50 - 29.50	1.0000	1.0000
L59	3	PWRT-608-S(13/16)	24.50 - 29.50	1.0000	1.0000
L59	4	PWRT-606-S(7/8)	24.50 - 29.50	1.0000	1.0000
L59	5	RFFT-48SM-001-XXX(3/8)	24.50 - 29.50	1.0000	1.0000
L59	7	7983A(ELLIPTICAL)	24.50 - 29.50	1.0000	1.0000
L59	12	CU12PSM9P6XXX(1-1/2)	24.50 - 29.50	1.0000	1.0000
L59	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	24.50 - 29.50	1.0000	1.0000
L59	27	Safety Line 3/8	24.50 - 29.50	1.0000	1.0000
L59	29	PL1.25x6.875 Reinforcement	24.50 - 29.50	1.0000	1.0000
L59	30	PL1.25x6.875 Reinforcement	24.50 - 29.50	1.0000	1.0000
L59	31	PL1.25x6.875 Reinforcement	24.50 - 29.50	1.0000	1.0000
L59	47	PL1x4 Reinforcement	24.50 - 29.50	1.0000	1.0000
L59	48	PL1x4 Reinforcement	24.50 - 29.50	1.0000	1.0000
L59	49	PL1x4 Reinforcement	24.50 - 29.50	1.0000	1.0000
L59	67	CCI-SFP-060100	24.50 - 25.00	1.0000	1.0000
L59	68	CCI-SFP-060100	24.50 - 25.00	1.0000	1.0000
L59	70	CCI-SFP-060100	24.50 - 25.00	1.0000	1.0000
L59	72	CCI-SFP-045100	24.50 - 29.50	1.0000	1.0000
L59	74	CCI-SFP-045100	25.08 - 29.50	1.0000	1.0000
L59	76	CCI-SFP-045100	25.08 - 29.50	1.0000	1.0000
L60	2	FB-L98B-034-XXX(3/8)	23.00 - 24.50	1.0000	1.0000
L60	3	PWRT-608-S(13/16)	23.00 - 24.50	1.0000	1.0000
L60	4	PWRT-606-S(7/8)	23.00 - 24.50	1.0000	1.0000
L60	5	RFFT-48SM-001-XXX(3/8)	23.00 - 24.50	1.0000	1.0000
L60	7	7983A(ELLIPTICAL)	23.00 - 24.50	1.0000	1.0000
L60	12	CU12PSM9P6XXX(1-1/2)	23.00 - 24.50	1.0000	1.0000
L60	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	23.00 - 24.50	1.0000	1.0000
L60	27	Safety Line 3/8	23.00 - 24.50	1.0000	1.0000
L60	29	PL1.25x6.875 Reinforcement	23.00 - 24.50	1.0000	1.0000
L60	30	PL1.25x6.875 Reinforcement	23.00 - 24.50	1.0000	1.0000
L60	31	PL1.25x6.875 Reinforcement	23.00 - 24.50	1.0000	1.0000
L60	47	PL1x4 Reinforcement	23.00 - 24.50	1.0000	1.0000
L60	48	PL1x4 Reinforcement	23.00 - 24.50	1.0000	1.0000
L60	49	PL1x4 Reinforcement	23.00 - 24.50	1.0000	1.0000
L60	67	CCI-SFP-060100	23.00 - 24.50	1.0000	1.0000
L60	68	CCI-SFP-060100	23.00 - 24.50	1.0000	1.0000
L60	70	CCI-SFP-060100	23.00 - 24.50	1.0000	1.0000
L60	72	CCI-SFP-045100	23.00 - 24.50	1.0000	1.0000
L61	2	FB-L98B-034-XXX(3/8)	22.75 - 23.00	1.0000	1.0000
L61	3	PWRT-608-S(13/16)	22.75 - 23.00	1.0000	1.0000
L61	4	PWRT-606-S(7/8)	22.75 - 23.00	1.0000	1.0000
L61	5	RFFT-48SM-001-XXX(3/8)	22.75 - 23.00	1.0000	1.0000
L61	7	7983A(ELLIPTICAL)	22.75 - 23.00	1.0000	1.0000
L61	12	CU12PSM9P6XXX(1-1/2)	22.75 - 23.00	1.0000	1.0000
L61	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	22.75 - 23.00	1.0000	1.0000
L61	27	Safety Line 3/8	22.75 - 23.00	1.0000	1.0000
L61	29	PL1.25x6.875 Reinforcement	22.75 - 23.00	1.0000	1.0000
L61	30	PL1.25x6.875 Reinforcement	22.75 - 23.00	1.0000	1.0000
L61	31	PL1.25x6.875 Reinforcement	22.75 - 23.00	1.0000	1.0000
L61	47	PL1x4 Reinforcement	22.75 - 23.00	1.0000	1.0000
L61	48	PL1x4 Reinforcement	22.75 - 23.00	1.0000	1.0000
L61	49	PL1x4 Reinforcement	22.75 - 23.00	1.0000	1.0000
L61	67	CCI-SFP-060100	22.75 - 23.00	1.0000	1.0000



Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L61	68	CCI-SFP-060100	22.75 - 23.00	1.0000	1.0000
L61	70	CCI-SFP-060100	22.75 - 23.00	1.0000	1.0000
L61	72	CCI-SFP-045100	22.75 - 23.00	1.0000	1.0000
L62	2	FB-L98B-034-XXX(3/8)	21.58 - 22.75	1.0000	1.0000
L62	3	PWRT-608-S(13/16)	21.58 - 22.75	1.0000	1.0000
L62	4	PWRT-606-S(7/8)	21.58 - 22.75	1.0000	1.0000
L62	5	RFFT-48SM-001-XXX(3/8)	21.58 - 22.75	1.0000	1.0000
L62	7	7983A(ELLIPTICAL)	21.58 - 22.75	1.0000	1.0000
L62	12	CU12PSM9P6XXX(1-1/2)	21.58 - 22.75	1.0000	1.0000
L62	21	MLC HYBRID 6X12	21.58 - 22.75	1.0000	1.0000
		6AWGX6(1-1/2)			
L62	27	Safety Line 3/8	21.58 - 22.75	1.0000	1.0000
L62	29	PL1.25x6.875 Reinforcement	21.58 - 22.75	1.0000	1.0000
L62	30	PL1.25x6.875 Reinforcement	21.58 - 22.75	1.0000	1.0000
L62	31	PL1.25x6.875 Reinforcement	21.58 - 22.75	1.0000	1.0000
L62	47	PL1x4 Reinforcement	21.58 - 22.75	1.0000	1.0000
L62	48	PL1x4 Reinforcement	21.58 - 22.75	1.0000	1.0000
L62	49	PL1x4 Reinforcement	21.58 - 22.75	1.0000	1.0000
L62	67	CCI-SFP-060100	21.58 - 22.75	1.0000	1.0000
L62	68	CCI-SFP-060100	21.58 - 22.75	1.0000	1.0000
L62	70	CCI-SFP-060100	21.58 - 22.75	1.0000	1.0000
L62	72	CCI-SFP-045100	21.58 - 22.75	1.0000	1.0000
L63	2	FB-L98B-034-XXX(3/8)	21.33 - 21.58	1.0000	1.0000
L63	3	PWRT-608-S(13/16)	21.33 - 21.58	1.0000	1.0000
L63	4	PWRT-606-S(7/8)	21.33 - 21.58	1.0000	1.0000
L63	5	RFFT-48SM-001-XXX(3/8)	21.33 - 21.58	1.0000	1.0000
L63	7	7983A(ELLIPTICAL)	21.33 - 21.58	1.0000	1.0000
L63	12	CU12PSM9P6XXX(1-1/2)	21.33 - 21.58	1.0000	1.0000
L63	21	MLC HYBRID 6X12	21.33 - 21.58	1.0000	1.0000
		6AWGX6(1-1/2)			
L63	27	Safety Line 3/8	21.33 - 21.58	1.0000	1.0000
L63	29	PL1.25x6.875 Reinforcement	21.33 - 21.58	1.0000	1.0000
L63	30	PL1.25x6.875 Reinforcement	21.33 - 21.58	1.0000	1.0000
L63	31	PL1.25x6.875 Reinforcement	21.33 - 21.58	1.0000	1.0000
L63	47	PL1x4 Reinforcement	21.33 - 21.58	1.0000	1.0000
L63	48	PL1x4 Reinforcement	21.33 - 21.58	1.0000	1.0000
L63	49	PL1x4 Reinforcement	21.33 - 21.58	1.0000	1.0000
L63	67	CCI-SFP-060100	21.33 - 21.58	1.0000	1.0000
L63	68	CCI-SFP-060100	21.33 - 21.58	1.0000	1.0000
L63	70	CCI-SFP-060100	21.33 - 21.58	1.0000	1.0000
L63	72	CCI-SFP-045100	21.33 - 21.58	1.0000	1.0000
L64	2	FB-L98B-034-XXX(3/8)	16.33 - 21.33	1.0000	1.0000
L64	3	PWRT-608-S(13/16)	16.33 - 21.33	1.0000	1.0000
L64	4	PWRT-606-S(7/8)	16.33 - 21.33	1.0000	1.0000
L64	5	RFFT-48SM-001-XXX(3/8)	16.33 - 21.33	1.0000	1.0000
L64	7	7983A(ELLIPTICAL)	16.33 - 21.33	1.0000	1.0000
L64	12	CU12PSM9P6XXX(1-1/2)	16.33 - 21.33	1.0000	1.0000
L64	21	MLC HYBRID 6X12	16.33 - 21.33	1.0000	1.0000
		6AWGX6(1-1/2)			
L64	27	Safety Line 3/8	16.33 - 21.33	1.0000	1.0000
L64	29	PL1.25x6.875 Reinforcement	16.33 - 21.33	1.0000	1.0000
L64	30	PL1.25x6.875 Reinforcement	16.33 - 21.33	1.0000	1.0000
L64	31	PL1.25x6.875 Reinforcement	16.33 - 21.33	1.0000	1.0000
L64	32	PL1.25x6.875 Reinforcement	16.33 - 16.42	1.0000	1.0000
L64	33	PL1.25x6.875 Reinforcement	16.33 - 16.42	1.0000	1.0000
L64	47	PL1x4 Reinforcement	16.33 - 21.33	1.0000	1.0000
L64	48	PL1x4 Reinforcement	16.33 - 21.33	1.0000	1.0000
L64	49	PL1x4 Reinforcement	16.33 - 21.33	1.0000	1.0000
L64	67	CCI-SFP-060100	16.33 - 21.33	1.0000	1.0000
L64	68	CCI-SFP-060100	16.33 - 21.33	1.0000	1.0000
L64	70	CCI-SFP-060100	16.33 - 21.33	1.0000	1.0000
L64	72	CCI-SFP-045100	20.08 - 21.33	1.0000	1.0000

<p><b>tnxTower</b></p> <p><b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265</p>	<p><b>Job</b></p> <p>79982.012.01 - WATERBURY,CT (BU# 876317)</p>	<p><b>Page</b></p> <p>43 of 95</p>
	<p><b>Project</b></p>	<p><b>Date</b></p> <p>16:40:32 05/09/22</p>
	<p><b>Client</b></p> <p>Crown Castle</p>	<p><b>Designed by</b></p> <p>Jayaraj B</p>

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L65	2	FB-L98B-034-XXX(3/8)	12.92 - 16.33	1.0000	1.0000
L65	3	PWRT-608-S(13/16)	12.92 - 16.33	1.0000	1.0000
L65	4	PWRT-606-S(7/8)	12.92 - 16.33	1.0000	1.0000
L65	5	RFFT-48SM-001-XXX(3/8)	12.92 - 16.33	1.0000	1.0000
L65	7	7983A(ELLIPTICAL)	12.92 - 16.33	1.0000	1.0000
L65	12	CU12PSM9P6XXX(1-1/2)	12.92 - 16.33	1.0000	1.0000
L65	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	12.92 - 16.33	1.0000	1.0000
L65	27	Safety Line 3/8	12.92 - 16.33	1.0000	1.0000
L65	29	PL1.25x6.875 Reinforcement	12.92 - 16.33	1.0000	1.0000
L65	30	PL1.25x6.875 Reinforcement	12.92 - 16.33	1.0000	1.0000
L65	31	PL1.25x6.875 Reinforcement	12.92 - 16.33	1.0000	1.0000
L65	32	PL1.25x6.875 Reinforcement	12.92 - 16.33	1.0000	1.0000
L65	33	PL1.25x6.875 Reinforcement	12.92 - 16.33	1.0000	1.0000
L65	47	PL1x4 Reinforcement	12.92 - 16.33	1.0000	1.0000
L65	48	PL1x4 Reinforcement	12.92 - 16.33	1.0000	1.0000
L65	49	PL1x4 Reinforcement	12.92 - 16.33	1.0000	1.0000
L65	67	CCI-SFP-060100	12.92 - 16.33	1.0000	1.0000
L65	68	CCI-SFP-060100	12.92 - 16.33	1.0000	1.0000
L65	70	CCI-SFP-060100	12.92 - 16.33	1.0000	1.0000
L66	2	FB-L98B-034-XXX(3/8)	12.67 - 12.92	1.0000	1.0000
L66	3	PWRT-608-S(13/16)	12.67 - 12.92	1.0000	1.0000
L66	4	PWRT-606-S(7/8)	12.67 - 12.92	1.0000	1.0000
L66	5	RFFT-48SM-001-XXX(3/8)	12.67 - 12.92	1.0000	1.0000
L66	7	7983A(ELLIPTICAL)	12.67 - 12.92	1.0000	1.0000
L66	12	CU12PSM9P6XXX(1-1/2)	12.67 - 12.92	1.0000	1.0000
L66	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	12.67 - 12.92	1.0000	1.0000
L66	27	Safety Line 3/8	12.67 - 12.92	1.0000	1.0000
L66	29	PL1.25x6.875 Reinforcement	12.67 - 12.92	1.0000	1.0000
L66	30	PL1.25x6.875 Reinforcement	12.67 - 12.92	1.0000	1.0000
L66	31	PL1.25x6.875 Reinforcement	12.67 - 12.92	1.0000	1.0000
L66	32	PL1.25x6.875 Reinforcement	12.67 - 12.92	1.0000	1.0000
L66	33	PL1.25x6.875 Reinforcement	12.67 - 12.92	1.0000	1.0000
L66	47	PL1x4 Reinforcement	12.67 - 12.92	1.0000	1.0000
L66	48	PL1x4 Reinforcement	12.67 - 12.92	1.0000	1.0000
L66	49	PL1x4 Reinforcement	12.67 - 12.92	1.0000	1.0000
L66	67	CCI-SFP-060100	12.67 - 12.92	1.0000	1.0000
L66	68	CCI-SFP-060100	12.67 - 12.92	1.0000	1.0000
L66	70	CCI-SFP-060100	12.67 - 12.92	1.0000	1.0000
L67	2	FB-L98B-034-XXX(3/8)	12.50 - 12.67	1.0000	1.0000
L67	3	PWRT-608-S(13/16)	12.50 - 12.67	1.0000	1.0000
L67	4	PWRT-606-S(7/8)	12.50 - 12.67	1.0000	1.0000
L67	5	RFFT-48SM-001-XXX(3/8)	12.50 - 12.67	1.0000	1.0000
L67	7	7983A(ELLIPTICAL)	12.50 - 12.67	1.0000	1.0000
L67	12	CU12PSM9P6XXX(1-1/2)	12.50 - 12.67	1.0000	1.0000
L67	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	12.50 - 12.67	1.0000	1.0000
L67	27	Safety Line 3/8	12.50 - 12.67	1.0000	1.0000
L67	29	PL1.25x6.875 Reinforcement	12.50 - 12.67	1.0000	1.0000
L67	30	PL1.25x6.875 Reinforcement	12.50 - 12.67	1.0000	1.0000
L67	31	PL1.25x6.875 Reinforcement	12.50 - 12.67	1.0000	1.0000
L67	32	PL1.25x6.875 Reinforcement	12.50 - 12.67	1.0000	1.0000
L67	33	PL1.25x6.875 Reinforcement	12.50 - 12.67	1.0000	1.0000
L67	47	PL1x4 Reinforcement	12.50 - 12.67	1.0000	1.0000
L67	48	PL1x4 Reinforcement	12.50 - 12.67	1.0000	1.0000
L67	49	PL1x4 Reinforcement	12.50 - 12.67	1.0000	1.0000
L67	67	CCI-SFP-060100	12.50 - 12.67	1.0000	1.0000
L67	68	CCI-SFP-060100	12.50 - 12.67	1.0000	1.0000
L67	70	CCI-SFP-060100	12.50 - 12.67	1.0000	1.0000
L68	2	FB-L98B-034-XXX(3/8)	12.25 - 12.50	1.0000	1.0000
L68	3	PWRT-608-S(13/16)	12.25 - 12.50	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	$K_a$ No Ice	$K_a$ Ice
L68	4	PWRT-606-S(7/8)	12.25 - 12.50	1.0000	1.0000
L68	5	RFFT-48SM-001-XXX(3/8)	12.25 - 12.50	1.0000	1.0000
L68	7	7983A(ELLIPTICAL)	12.25 - 12.50	1.0000	1.0000
L68	12	CU12PSM9P6XXX(1-1/2)	12.25 - 12.50	1.0000	1.0000
L68	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	12.25 - 12.50	1.0000	1.0000
L68	27	Safety Line 3/8	12.25 - 12.50	1.0000	1.0000
L68	29	PL1.25x6.875 Reinforcement	12.25 - 12.50	1.0000	1.0000
L68	30	PL1.25x6.875 Reinforcement	12.25 - 12.50	1.0000	1.0000
L68	31	PL1.25x6.875 Reinforcement	12.25 - 12.50	1.0000	1.0000
L68	32	PL1.25x6.875 Reinforcement	12.25 - 12.50	1.0000	1.0000
L68	33	PL1.25x6.875 Reinforcement	12.25 - 12.50	1.0000	1.0000
L68	47	PL1x4 Reinforcement	12.25 - 12.50	1.0000	1.0000
L68	48	PL1x4 Reinforcement	12.25 - 12.50	1.0000	1.0000
L68	49	PL1x4 Reinforcement	12.25 - 12.50	1.0000	1.0000
L68	67	CCI-SFP-060100	12.25 - 12.50	1.0000	1.0000
L68	68	CCI-SFP-060100	12.25 - 12.50	1.0000	1.0000
L68	70	CCI-SFP-060100	12.25 - 12.50	1.0000	1.0000
L69	2	FB-L98B-034-XXX(3/8)	12.00 - 12.25	1.0000	1.0000
L69	3	PWRT-608-S(13/16)	12.00 - 12.25	1.0000	1.0000
L69	4	PWRT-606-S(7/8)	12.00 - 12.25	1.0000	1.0000
L69	5	RFFT-48SM-001-XXX(3/8)	12.00 - 12.25	1.0000	1.0000
L69	7	7983A(ELLIPTICAL)	12.00 - 12.25	1.0000	1.0000
L69	12	CU12PSM9P6XXX(1-1/2)	12.00 - 12.25	1.0000	1.0000
L69	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	12.00 - 12.25	1.0000	1.0000
L69	27	Safety Line 3/8	12.00 - 12.25	1.0000	1.0000
L69	29	PL1.25x6.875 Reinforcement	12.00 - 12.25	1.0000	1.0000
L69	30	PL1.25x6.875 Reinforcement	12.00 - 12.25	1.0000	1.0000
L69	31	PL1.25x6.875 Reinforcement	12.00 - 12.25	1.0000	1.0000
L69	32	PL1.25x6.875 Reinforcement	12.00 - 12.25	1.0000	1.0000
L69	33	PL1.25x6.875 Reinforcement	12.00 - 12.25	1.0000	1.0000
L69	47	PL1x4 Reinforcement	12.00 - 12.25	1.0000	1.0000
L69	48	PL1x4 Reinforcement	12.00 - 12.25	1.0000	1.0000
L69	49	PL1x4 Reinforcement	12.00 - 12.25	1.0000	1.0000
L69	67	CCI-SFP-060100	12.00 - 12.25	1.0000	1.0000
L69	68	CCI-SFP-060100	12.00 - 12.25	1.0000	1.0000
L69	70	CCI-SFP-060100	12.00 - 12.25	1.0000	1.0000
L70	2	FB-L98B-034-XXX(3/8)	11.75 - 12.00	1.0000	1.0000
L70	3	PWRT-608-S(13/16)	11.75 - 12.00	1.0000	1.0000
L70	4	PWRT-606-S(7/8)	11.75 - 12.00	1.0000	1.0000
L70	5	RFFT-48SM-001-XXX(3/8)	11.75 - 12.00	1.0000	1.0000
L70	7	7983A(ELLIPTICAL)	11.75 - 12.00	1.0000	1.0000
L70	12	CU12PSM9P6XXX(1-1/2)	11.75 - 12.00	1.0000	1.0000
L70	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	11.75 - 12.00	1.0000	1.0000
L70	27	Safety Line 3/8	11.75 - 12.00	1.0000	1.0000
L70	29	PL1.25x6.875 Reinforcement	11.75 - 12.00	1.0000	1.0000
L70	30	PL1.25x6.875 Reinforcement	11.75 - 12.00	1.0000	1.0000
L70	31	PL1.25x6.875 Reinforcement	11.75 - 12.00	1.0000	1.0000
L70	32	PL1.25x6.875 Reinforcement	11.75 - 12.00	1.0000	1.0000
L70	33	PL1.25x6.875 Reinforcement	11.75 - 12.00	1.0000	1.0000
L70	47	PL1x4 Reinforcement	11.75 - 12.00	1.0000	1.0000
L70	48	PL1x4 Reinforcement	11.75 - 12.00	1.0000	1.0000
L70	49	PL1x4 Reinforcement	11.75 - 12.00	1.0000	1.0000
L70	67	CCI-SFP-060100	11.75 - 12.00	1.0000	1.0000
L70	68	CCI-SFP-060100	11.75 - 12.00	1.0000	1.0000
L70	70	CCI-SFP-060100	11.75 - 12.00	1.0000	1.0000
L71	2	FB-L98B-034-XXX(3/8)	8.50 - 11.75	1.0000	1.0000
L71	3	PWRT-608-S(13/16)	8.50 - 11.75	1.0000	1.0000
L71	4	PWRT-606-S(7/8)	8.50 - 11.75	1.0000	1.0000
L71	5	RFFT-48SM-001-XXX(3/8)	8.50 - 11.75	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L71	7	7983A(ELLIPTICAL)	8.50 - 11.75	1.0000	1.0000
L71	12	CU12PSM9P6XXX(1-1/2)	8.50 - 11.75	1.0000	1.0000
L71	21	MLC HYBRID 6X12	8.50 - 11.75	1.0000	1.0000
		6AWGX6(1-1/2)			
L71	27	Safety Line 3/8	8.50 - 11.75	1.0000	1.0000
L71	29	PL1.25x6.875 Reinforcement	8.50 - 11.75	1.0000	1.0000
L71	30	PL1.25x6.875 Reinforcement	8.50 - 11.75	1.0000	1.0000
L71	31	PL1.25x6.875 Reinforcement	9.17 - 11.75	1.0000	1.0000
L71	32	PL1.25x6.875 Reinforcement	8.50 - 11.75	1.0000	1.0000
L71	33	PL1.25x6.875 Reinforcement	8.50 - 11.75	1.0000	1.0000
L71	47	PL1x4 Reinforcement	10.75 - 11.75	1.0000	1.0000
L71	48	PL1x4 Reinforcement	10.75 - 11.75	1.0000	1.0000
L71	49	PL1x4 Reinforcement	10.75 - 11.75	1.0000	1.0000
L71	63	Transition Stiffener 1x7	8.50 - 10.50	1.0000	1.0000
L71	64	Transition Stiffener 1x7	8.50 - 10.50	1.0000	1.0000
L71	65	Transition Stiffener 1x7	8.50 - 10.50	1.0000	1.0000
L71	67	CCI-SFP-060100	8.50 - 11.75	1.0000	1.0000
L71	68	CCI-SFP-060100	8.50 - 11.75	1.0000	1.0000
L71	70	CCI-SFP-060100	10.00 - 11.75	1.0000	1.0000
L72	2	FB-L98B-034-XXX(3/8)	8.25 - 8.50	1.0000	1.0000
L72	3	PWRT-608-S(13/16)	8.25 - 8.50	1.0000	1.0000
L72	4	PWRT-606-S(7/8)	8.25 - 8.50	1.0000	1.0000
L72	5	RFFT-48SM-001-XXX(3/8)	8.25 - 8.50	1.0000	1.0000
L72	7	7983A(ELLIPTICAL)	8.25 - 8.50	1.0000	1.0000
L72	12	CU12PSM9P6XXX(1-1/2)	8.25 - 8.50	1.0000	1.0000
L72	21	MLC HYBRID 6X12	8.25 - 8.50	1.0000	1.0000
		6AWGX6(1-1/2)			
L72	27	Safety Line 3/8	8.25 - 8.50	1.0000	1.0000
L72	29	PL1.25x6.875 Reinforcement	8.25 - 8.50	1.0000	1.0000
L72	30	PL1.25x6.875 Reinforcement	8.25 - 8.50	1.0000	1.0000
L72	32	PL1.25x6.875 Reinforcement	8.25 - 8.50	1.0000	1.0000
L72	33	PL1.25x6.875 Reinforcement	8.25 - 8.50	1.0000	1.0000
L72	63	Transition Stiffener 1x7	8.25 - 8.50	1.0000	1.0000
L72	64	Transition Stiffener 1x7	8.25 - 8.50	1.0000	1.0000
L72	65	Transition Stiffener 1x7	8.25 - 8.50	1.0000	1.0000
L72	67	CCI-SFP-060100	8.25 - 8.50	1.0000	1.0000
L72	68	CCI-SFP-060100	8.25 - 8.50	1.0000	1.0000
L73	2	FB-L98B-034-XXX(3/8)	7.00 - 8.25	1.0000	1.0000
L73	3	PWRT-608-S(13/16)	7.00 - 8.25	1.0000	1.0000
L73	4	PWRT-606-S(7/8)	7.00 - 8.25	1.0000	1.0000
L73	5	RFFT-48SM-001-XXX(3/8)	7.00 - 8.25	1.0000	1.0000
L73	7	7983A(ELLIPTICAL)	7.00 - 8.25	1.0000	1.0000
L73	12	CU12PSM9P6XXX(1-1/2)	7.00 - 8.25	1.0000	1.0000
L73	21	MLC HYBRID 6X12	7.00 - 8.25	1.0000	1.0000
		6AWGX6(1-1/2)			
L73	27	Safety Line 3/8	7.00 - 8.25	1.0000	1.0000
L73	29	PL1.25x6.875 Reinforcement	7.00 - 8.25	1.0000	1.0000
L73	30	PL1.25x6.875 Reinforcement	7.00 - 8.25	1.0000	1.0000
L73	32	PL1.25x6.875 Reinforcement	7.00 - 8.25	1.0000	1.0000
L73	33	PL1.25x6.875 Reinforcement	7.00 - 8.25	1.0000	1.0000
L73	63	Transition Stiffener 1x7	7.00 - 8.25	1.0000	1.0000
L73	64	Transition Stiffener 1x7	7.00 - 8.25	1.0000	1.0000
L73	65	Transition Stiffener 1x7	7.00 - 8.25	1.0000	1.0000
L73	67	CCI-SFP-060100	7.00 - 8.25	1.0000	1.0000
L73	68	CCI-SFP-060100	7.00 - 8.25	1.0000	1.0000
L74	2	FB-L98B-034-XXX(3/8)	6.75 - 7.00	1.0000	1.0000
L74	3	PWRT-608-S(13/16)	6.75 - 7.00	1.0000	1.0000
L74	4	PWRT-606-S(7/8)	6.75 - 7.00	1.0000	1.0000
L74	5	RFFT-48SM-001-XXX(3/8)	6.75 - 7.00	1.0000	1.0000
L74	7	7983A(ELLIPTICAL)	6.75 - 7.00	1.0000	1.0000
L74	12	CU12PSM9P6XXX(1-1/2)	6.75 - 7.00	1.0000	1.0000
L74	21	MLC HYBRID 6X12	6.75 - 7.00	1.0000	1.0000

<b>tnxTower</b>  <b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	<b>Job</b> 79982.012.01 - WATERBURY,CT (BU# 876317)	<b>Page</b> 46 of 95
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	<b>Client</b> Crown Castle	<b>Designed by</b> Jayaraj B

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L74	27	6AWGX6(1-1/2)			
L74	27	Safety Line 3/8	6.75 - 7.00	1.0000	1.0000
L74	29	PL1.25x6.875 Reinforcement	6.75 - 7.00	1.0000	1.0000
L74	30	PL1.25x6.875 Reinforcement	6.75 - 7.00	1.0000	1.0000
L74	32	PL1.25x6.875 Reinforcement	6.75 - 7.00	1.0000	1.0000
L74	33	PL1.25x6.875 Reinforcement	6.75 - 7.00	1.0000	1.0000
L74	63	Transition Stiffener 1x7	6.75 - 7.00	1.0000	1.0000
L74	64	Transition Stiffener 1x7	6.75 - 7.00	1.0000	1.0000
L74	65	Transition Stiffener 1x7	6.75 - 7.00	1.0000	1.0000
L74	67	CCI-SFP-060100	6.75 - 7.00	1.0000	1.0000
L74	68	CCI-SFP-060100	6.75 - 7.00	1.0000	1.0000
L75	2	FB-L98B-034-XXX(3/8)	1.75 - 6.75	1.0000	1.0000
L75	3	PWRT-608-S(13/16)	1.75 - 6.75	1.0000	1.0000
L75	4	PWRT-606-S(7/8)	1.75 - 6.75	1.0000	1.0000
L75	5	RFFT-48SM-001-XXX(3/8)	1.75 - 6.75	1.0000	1.0000
L75	7	7983A(ELLIPTICAL)	1.75 - 6.75	1.0000	1.0000
L75	12	CU12PSM9P6XXX(1-1/2)	1.75 - 6.75	1.0000	1.0000
L75	21	MLC HYBRID 6X12	1.75 - 6.75	1.0000	1.0000
L75	27	6AWGX6(1-1/2)			
L75	27	Safety Line 3/8	1.75 - 6.75	1.0000	1.0000
L75	29	PL1.25x6.875 Reinforcement	1.75 - 6.75	1.0000	1.0000
L75	30	PL1.25x6.875 Reinforcement	1.75 - 6.75	1.0000	1.0000
L75	32	PL1.25x6.875 Reinforcement	1.75 - 6.75	1.0000	1.0000
L75	33	PL1.25x6.875 Reinforcement	1.75 - 6.75	1.0000	1.0000
L75	63	Transition Stiffener 1x7	1.75 - 6.75	1.0000	1.0000
L75	64	Transition Stiffener 1x7	1.75 - 6.75	1.0000	1.0000
L75	65	Transition Stiffener 1x7	1.75 - 6.75	1.0000	1.0000
L75	67	CCI-SFP-060100	5.00 - 6.75	1.0000	1.0000
L75	68	CCI-SFP-060100	5.00 - 6.75	1.0000	1.0000
L76	2	FB-L98B-034-XXX(3/8)	0.00 - 1.75	1.0000	1.0000
L76	3	PWRT-608-S(13/16)	0.00 - 1.75	1.0000	1.0000
L76	4	PWRT-606-S(7/8)	0.00 - 1.75	1.0000	1.0000
L76	5	RFFT-48SM-001-XXX(3/8)	0.00 - 1.75	1.0000	1.0000
L76	7	7983A(ELLIPTICAL)	0.00 - 1.75	1.0000	1.0000
L76	12	CU12PSM9P6XXX(1-1/2)	0.00 - 1.75	1.0000	1.0000
L76	21	MLC HYBRID 6X12	0.00 - 1.75	1.0000	1.0000
L76	27	6AWGX6(1-1/2)			
L76	27	Safety Line 3/8	0.00 - 1.75	1.0000	1.0000
L76	29	PL1.25x6.875 Reinforcement	0.00 - 1.75	1.0000	1.0000
L76	30	PL1.25x6.875 Reinforcement	0.00 - 1.75	1.0000	1.0000
L76	32	PL1.25x6.875 Reinforcement	0.00 - 1.75	1.0000	1.0000
L76	33	PL1.25x6.875 Reinforcement	0.00 - 1.75	1.0000	1.0000
L76	63	Transition Stiffener 1x7	0.00 - 1.75	1.0000	1.0000
L76	64	Transition Stiffener 1x7	0.00 - 1.75	1.0000	1.0000
L76	65	Transition Stiffener 1x7	0.00 - 1.75	1.0000	1.0000

### Effective Width of Flat Linear Attachments / Feed Lines

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L5	93	CCI-AFP-045100	124.25 - 125.42	Auto	0.1983
L5	94	CCI-AFP-045100	124.25 - 125.42	Auto	0.1983
L5	95	CCI-AFP-045100	124.25 - 125.42	Auto	0.1983
L6	93	CCI-AFP-045100	123.42 - 124.25	Auto	0.1865
L6	94	CCI-AFP-045100	123.42 -	Auto	0.1865

**tnxTower**

**B+T Group**  
 1717 S. Boulder, Suite 300  
 Tulsa, OK 74119  
 Phone: (918) 587-4630  
 FAX: (918) 295-0265

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Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L6	95	CCI-AFP-045100	124.25 123.42 - 124.25	Auto	0.1865
L7	93	CCI-AFP-045100	123.17 - 123.42	Auto	0.3886
L7	94	CCI-AFP-045100	123.17 - 123.42	Auto	0.3886
L7	95	CCI-AFP-045100	123.17 - 123.42	Auto	0.3886
L8	93	CCI-AFP-045100	118.17 - 123.17	Auto	0.3429
L8	94	CCI-AFP-045100	118.17 - 123.17	Auto	0.3429
L8	95	CCI-AFP-045100	118.17 - 123.17	Auto	0.3429
L9	93	CCI-AFP-045100	113.17 - 118.17	Auto	0.2693
L9	94	CCI-AFP-045100	113.17 - 118.17	Auto	0.2693
L9	95	CCI-AFP-045100	113.17 - 118.17	Auto	0.2693
L10	93	CCI-AFP-045100	109.50 - 113.17	Auto	0.2110
L10	94	CCI-AFP-045100	109.50 - 113.17	Auto	0.2110
L10	95	CCI-AFP-045100	109.50 - 113.17	Auto	0.2110
L10	97	CCI-AFP-040075	109.50 - 111.00	Auto	0.0981
L10	99	CCI-AFP-040075	109.50 - 111.00	Auto	0.0981
L11	93	CCI-AFP-045100	109.25 - 109.50	Auto	0.2550
L11	94	CCI-AFP-045100	109.25 - 109.50	Auto	0.2550
L11	95	CCI-AFP-045100	109.25 - 109.50	Auto	0.2550
L11	97	CCI-AFP-040075	109.25 - 109.50	Auto	0.1619
L11	99	CCI-AFP-040075	109.25 - 109.50	Auto	0.1619
L12	59	PL1x4 Reinforcement	104.75 - 106.50	Auto	0.0956
L12	60	PL1x4 Reinforcement	104.75 - 106.50	Auto	0.0956
L12	61	PL1x4 Reinforcement	104.75 - 106.50	Auto	0.0956
L12	91	CCI-AFP-05012520	104.75 - 105.33	Auto	0.2703
L12	93	CCI-AFP-045100	104.75 - 109.25	Auto	0.2122
L12	94	CCI-AFP-045100	104.75 - 109.25	Auto	0.2122
L12	95	CCI-AFP-045100	104.75 - 109.25	Auto	0.2122
L12	97	CCI-AFP-040075	104.75 - 109.25	Auto	0.1138
L12	99	CCI-AFP-040075	104.75 - 109.25	Auto	0.1138
L13	59	PL1x4 Reinforcement	104.50 - 104.75	Auto	0.2248

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L13	60	PL1x4 Reinforcement	104.50 - 104.75	Auto	0.2248
L13	61	PL1x4 Reinforcement	104.50 - 104.75	Auto	0.2248
L13	91	CCI-AFP-05012520	104.50 - 104.75	Auto	0.3798
L13	93	CCI-AFP-045100	104.50 - 104.75	Auto	0.3109
L13	94	CCI-AFP-045100	104.50 - 104.75	Auto	0.3109
L13	95	CCI-AFP-045100	104.50 - 104.75	Auto	0.3109
L13	97	CCI-AFP-040075	104.50 - 104.75	Auto	0.2248
L13	99	CCI-AFP-040075	104.50 - 104.75	Auto	0.2248
L14	59	PL1x4 Reinforcement	102.42 - 104.50	Auto	0.2010
L14	60	PL1x4 Reinforcement	102.42 - 104.50	Auto	0.2010
L14	61	PL1x4 Reinforcement	102.42 - 104.50	Auto	0.2010
L14	91	CCI-AFP-05012520	102.42 - 104.50	Auto	0.3608
L14	93	CCI-AFP-045100	102.42 - 104.50	Auto	0.2897
L14	94	CCI-AFP-045100	102.42 - 104.50	Auto	0.2897
L14	95	CCI-AFP-045100	102.42 - 104.50	Auto	0.2897
L14	97	CCI-AFP-040075	102.42 - 104.50	Auto	0.2010
L14	99	CCI-AFP-040075	102.42 - 104.50	Auto	0.2010
L15	59	PL1x4 Reinforcement	102.17 - 102.42	Auto	0.0515
L15	60	PL1x4 Reinforcement	102.17 - 102.42	Auto	0.0515
L15	61	PL1x4 Reinforcement	102.17 - 102.42	Auto	0.0515
L15	91	CCI-AFP-05012520	102.17 - 102.42	Auto	0.2412
L15	93	CCI-AFP-045100	102.17 - 102.42	Auto	0.1569
L15	94	CCI-AFP-045100	102.17 - 102.42	Auto	0.1569
L15	95	CCI-AFP-045100	102.17 - 102.42	Auto	0.1569
L15	97	CCI-AFP-040075	102.17 - 102.42	Auto	0.0515
L15	99	CCI-AFP-040075	102.17 - 102.42	Auto	0.0515
L16	43	PL1.25x3.625 Reinforcement	98.75 - 100.00	Auto	0.0000
L16	44	PL1.25x3.625 Reinforcement	98.75 - 100.00	Auto	0.0000
L16	45	PL1.25x3.625 Reinforcement	98.75 - 100.00	Auto	0.0000
L16	59	PL1x4 Reinforcement	98.75 - 102.17	Auto	0.0191
L16	60	PL1x4 Reinforcement	98.75 - 102.17	Auto	0.0191
L16	61	PL1x4 Reinforcement	98.75 - 102.17	Auto	0.0191
L16	86	CCI-SFP-040075	98.75 - 100.33	Auto	0.0071
L16	87	CCI-SFP-040075	98.75 - 100.33	Auto	0.0071
L16	91	CCI-AFP-05012520	98.75 - 102.17	Auto	0.2152



# tnxTower

**B+T Group**  
1717 S. Boulder, Suite 300  
Tulsa, OK 74119  
Phone: (918) 587-4630  
FAX: (918) 295-0265

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Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L16	93	CCI-AFP-045100	100.42 - 102.17	Auto	0.1377
L16	94	CCI-AFP-045100	100.42 - 102.17	Auto	0.1377
L16	95	CCI-AFP-045100	100.42 - 102.17	Auto	0.1377
L16	97	CCI-AFP-040075	98.75 - 102.17	Auto	0.0191
L16	99	CCI-AFP-040075	101.00 - 102.17	Auto	0.0338
L17	43	PL1.25x3.625 Reinforcement	98.50 - 98.75	Auto	0.1033
L17	44	PL1.25x3.625 Reinforcement	98.50 - 98.75	Auto	0.1033
L17	45	PL1.25x3.625 Reinforcement	98.50 - 98.75	Auto	0.1033
L17	59	PL1x4 Reinforcement	98.50 - 98.75	Auto	0.1874
L17	60	PL1x4 Reinforcement	98.50 - 98.75	Auto	0.1874
L17	61	PL1x4 Reinforcement	98.50 - 98.75	Auto	0.1874
L17	86	CCI-SFP-040075	98.50 - 98.75	Auto	0.1874
L17	87	CCI-SFP-040075	98.50 - 98.75	Auto	0.1874
L17	91	CCI-AFP-05012520	98.50 - 98.75	Auto	0.3499
L17	97	CCI-AFP-040075	98.50 - 98.75	Auto	0.1874
L18	43	PL1.25x3.625 Reinforcement	97.50 - 98.50	Auto	0.0942
L18	44	PL1.25x3.625 Reinforcement	97.50 - 98.50	Auto	0.0942
L18	45	PL1.25x3.625 Reinforcement	97.50 - 98.50	Auto	0.0942
L18	59	PL1x4 Reinforcement	97.50 - 98.50	Auto	0.1791
L18	60	PL1x4 Reinforcement	97.50 - 98.50	Auto	0.1791
L18	61	PL1x4 Reinforcement	97.50 - 98.50	Auto	0.1791
L18	86	CCI-SFP-040075	97.50 - 98.50	Auto	0.1791
L18	87	CCI-SFP-040075	97.50 - 98.50	Auto	0.1791
L18	91	CCI-AFP-05012520	97.50 - 98.50	Auto	0.3433
L18	97	CCI-AFP-040075	97.50 - 98.50	Auto	0.1791
L19	43	PL1.25x3.625 Reinforcement	97.25 - 97.50	Auto	0.0204
L19	44	PL1.25x3.625 Reinforcement	97.25 - 97.50	Auto	0.0204
L19	45	PL1.25x3.625 Reinforcement	97.25 - 97.50	Auto	0.0204
L19	59	PL1x4 Reinforcement	97.25 - 97.50	Auto	0.1122
L19	60	PL1x4 Reinforcement	97.25 - 97.50	Auto	0.1122
L19	61	PL1x4 Reinforcement	97.25 - 97.50	Auto	0.1122
L19	86	CCI-SFP-040075	97.25 - 97.50	Auto	0.1122
L19	87	CCI-SFP-040075	97.25 - 97.50	Auto	0.1122
L19	91	CCI-AFP-05012520	97.25 - 97.50	Auto	0.2898
L19	97	CCI-AFP-040075	97.25 - 97.50	Auto	0.1122
L20	43	PL1.25x3.625 Reinforcement	92.00 - 97.25	Auto	0.0006
L20	44	PL1.25x3.625 Reinforcement	92.00 - 97.25	Auto	0.0006
L20	45	PL1.25x3.625 Reinforcement	92.00 - 97.25	Auto	0.0006
L20	59	PL1x4 Reinforcement	92.00 - 97.25	Auto	0.0675
L20	60	PL1x4 Reinforcement	92.00 - 97.25	Auto	0.0675
L20	61	PL1x4 Reinforcement	92.00 - 97.25	Auto	0.0675
L20	86	CCI-SFP-040075	92.00 - 97.25	Auto	0.0675
L20	87	CCI-SFP-040075	92.00 - 97.25	Auto	0.0675
L20	91	CCI-AFP-05012520	92.00 - 97.25	Auto	0.2540
L20	97	CCI-AFP-040075	96.00 - 97.25	Auto	0.0939
L21	43	PL1.25x3.625 Reinforcement	90.55 - 92.00	Auto	0.0009
L21	44	PL1.25x3.625 Reinforcement	90.55 - 92.00	Auto	0.0009
L21	45	PL1.25x3.625 Reinforcement	90.55 - 92.00	Auto	0.0009
L21	59	PL1x4 Reinforcement	90.55 - 92.00	Auto	0.0897
L21	60	PL1x4 Reinforcement	90.55 - 92.00	Auto	0.0897
L21	61	PL1x4 Reinforcement	90.55 - 92.00	Auto	0.0897
L21	86	CCI-SFP-040075	90.55 - 92.00	Auto	0.0897
L21	87	CCI-SFP-040075	90.55 - 92.00	Auto	0.0897
L21	91	CCI-AFP-05012520	90.55 - 92.00	Auto	0.2718
L22	43	PL1.25x3.625 Reinforcement	89.25 - 90.55	Auto	0.0000
L22	44	PL1.25x3.625 Reinforcement	89.25 - 90.55	Auto	0.0000
L22	45	PL1.25x3.625 Reinforcement	89.25 - 90.55	Auto	0.0000



Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L22	59	PL1x4 Reinforcement	89.25 - 90.55	Auto	0.0546
L22	60	PL1x4 Reinforcement	89.25 - 90.55	Auto	0.0546
L22	61	PL1x4 Reinforcement	89.25 - 90.55	Auto	0.0546
L22	86	CCI-SFP-040075	89.25 - 90.55	Auto	0.0546
L22	87	CCI-SFP-040075	89.25 - 90.55	Auto	0.0546
L22	89	CCI-SFP-040075	89.25 - 90.33	Auto	0.0532
L22	91	CCI-AFP-05012520	89.25 - 90.55	Auto	0.2437
L23	39	PL1.25x5.5 Reinforcement	89.00 - 89.25	Auto	0.4146
L23	40	PL1.25x5.5 Reinforcement	89.00 - 89.25	Auto	0.4146
L23	41	PL1.25x5.5 Reinforcement	89.00 - 89.25	Auto	0.4146
L23	59	PL1x4 Reinforcement	89.00 - 89.25	Auto	0.1950
L23	60	PL1x4 Reinforcement	89.00 - 89.25	Auto	0.1950
L23	61	PL1x4 Reinforcement	89.00 - 89.25	Auto	0.1950
L23	86	CCI-SFP-040075	89.00 - 89.25	Auto	0.1950
L23	87	CCI-SFP-040075	89.00 - 89.25	Auto	0.1950
L23	89	CCI-SFP-040075	89.00 - 89.25	Auto	0.1950
L23	91	CCI-AFP-05012520	89.00 - 89.25	Auto	0.3560
L24	39	PL1.25x5.5 Reinforcement	88.25 - 89.00	Auto	0.3975
L24	40	PL1.25x5.5 Reinforcement	88.25 - 89.00	Auto	0.3975
L24	41	PL1.25x5.5 Reinforcement	88.25 - 89.00	Auto	0.3975
L24	59	PL1x4 Reinforcement	88.25 - 89.00	Auto	0.1716
L24	60	PL1x4 Reinforcement	88.25 - 89.00	Auto	0.1716
L24	61	PL1x4 Reinforcement	88.25 - 89.00	Auto	0.1716
L24	86	CCI-SFP-040075	88.25 - 89.00	Auto	0.1716
L24	87	CCI-SFP-040075	88.25 - 89.00	Auto	0.1716
L24	89	CCI-SFP-040075	88.25 - 89.00	Auto	0.1716
L24	91	CCI-AFP-05012520	88.25 - 89.00	Auto	0.3373
L25	39	PL1.25x5.5 Reinforcement	88.00 - 88.25	Auto	0.2891
L25	40	PL1.25x5.5 Reinforcement	88.00 - 88.25	Auto	0.2891
L25	41	PL1.25x5.5 Reinforcement	88.00 - 88.25	Auto	0.2891
L25	59	PL1x4 Reinforcement	88.00 - 88.25	Auto	0.0226
L25	60	PL1x4 Reinforcement	88.00 - 88.25	Auto	0.0226
L25	61	PL1x4 Reinforcement	88.00 - 88.25	Auto	0.0226
L25	86	CCI-SFP-040075	88.00 - 88.25	Auto	0.0226
L25	87	CCI-SFP-040075	88.00 - 88.25	Auto	0.0226
L25	89	CCI-SFP-040075	88.00 - 88.25	Auto	0.0226
L25	91	CCI-AFP-05012520	88.00 - 88.25	Auto	0.2181
L26	39	PL1.25x5.5 Reinforcement	87.83 - 88.00	Auto	0.2871
L26	40	PL1.25x5.5 Reinforcement	87.83 - 88.00	Auto	0.2871
L26	41	PL1.25x5.5 Reinforcement	87.83 - 88.00	Auto	0.2871
L26	59	PL1x4 Reinforcement	87.83 - 88.00	Auto	0.0198
L26	60	PL1x4 Reinforcement	87.83 - 88.00	Auto	0.0198
L26	61	PL1x4 Reinforcement	87.83 - 88.00	Auto	0.0198
L26	86	CCI-SFP-040075	87.83 - 88.00	Auto	0.0198
L26	87	CCI-SFP-040075	87.83 - 88.00	Auto	0.0198
L26	89	CCI-SFP-040075	87.83 - 88.00	Auto	0.0198
L26	91	CCI-AFP-05012520	87.83 - 88.00	Auto	0.2158
L27	39	PL1.25x5.5 Reinforcement	87.58 - 87.83	Auto	0.2425
L27	40	PL1.25x5.5 Reinforcement	87.58 - 87.83	Auto	0.2425
L27	41	PL1.25x5.5 Reinforcement	87.58 - 87.83	Auto	0.2425
L27	59	PL1x4 Reinforcement	87.58 - 87.83	Auto	0.0000
L27	60	PL1x4 Reinforcement	87.58 - 87.83	Auto	0.0000
L27	61	PL1x4 Reinforcement	87.58 - 87.83	Auto	0.0000
L27	86	CCI-SFP-040075	87.58 - 87.83	Auto	0.0000
L27	87	CCI-SFP-040075	87.58 - 87.83	Auto	0.0000
L27	89	CCI-SFP-040075	87.58 - 87.83	Auto	0.0000
L27	91	CCI-AFP-05012520	87.58 - 87.83	Auto	0.1667
L28	39	PL1.25x5.5 Reinforcement	82.58 - 87.58	Auto	0.2048
L28	40	PL1.25x5.5 Reinforcement	82.58 - 87.58	Auto	0.2048
L28	41	PL1.25x5.5 Reinforcement	82.58 - 87.58	Auto	0.2048
L28	59	PL1x4 Reinforcement	86.50 - 87.58	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L28	60	PL1x4 Reinforcement	86.50 - 87.58	Auto	0.0000
L28	61	PL1x4 Reinforcement	86.50 - 87.58	Auto	0.0000
L28	86	CCI-SFP-040075	82.58 - 87.58	Auto	0.0000
L28	87	CCI-SFP-040075	82.58 - 87.58	Auto	0.0000
L28	89	CCI-SFP-040075	82.58 - 87.58	Auto	0.0000
L28	91	CCI-AFP-05012520	85.33 - 87.58	Auto	0.1400
L29	39	PL1.25x5.5 Reinforcement	77.58 - 82.58	Auto	0.1441
L29	40	PL1.25x5.5 Reinforcement	77.58 - 82.58	Auto	0.1441
L29	41	PL1.25x5.5 Reinforcement	77.58 - 82.58	Auto	0.1441
L29	55	PL1x4 Reinforcement	77.58 - 78.75	Auto	0.0000
L29	56	PL1x4 Reinforcement	77.58 - 78.75	Auto	0.0000
L29	57	PL1x4 Reinforcement	77.58 - 78.75	Auto	0.0000
L29	86	CCI-SFP-040075	77.58 - 82.58	Auto	0.0000
L29	87	CCI-SFP-040075	77.58 - 82.58	Auto	0.0000
L29	89	CCI-SFP-040075	77.58 - 82.58	Auto	0.0000
L30	39	PL1.25x5.5 Reinforcement	77.00 - 77.58	Auto	0.1170
L30	40	PL1.25x5.5 Reinforcement	77.00 - 77.58	Auto	0.1170
L30	41	PL1.25x5.5 Reinforcement	77.00 - 77.58	Auto	0.1170
L30	55	PL1x4 Reinforcement	77.00 - 77.58	Auto	0.0000
L30	56	PL1x4 Reinforcement	77.00 - 77.58	Auto	0.0000
L30	57	PL1x4 Reinforcement	77.00 - 77.58	Auto	0.0000
L30	86	CCI-SFP-040075	77.00 - 77.58	Auto	0.0000
L30	87	CCI-SFP-040075	77.00 - 77.58	Auto	0.0000
L30	89	CCI-SFP-040075	77.00 - 77.58	Auto	0.0000
L31	39	PL1.25x5.5 Reinforcement	76.75 - 77.00	Auto	0.2105
L31	40	PL1.25x5.5 Reinforcement	76.75 - 77.00	Auto	0.2105
L31	41	PL1.25x5.5 Reinforcement	76.75 - 77.00	Auto	0.2105
L31	55	PL1x4 Reinforcement	76.75 - 77.00	Auto	0.0000
L31	56	PL1x4 Reinforcement	76.75 - 77.00	Auto	0.0000
L31	57	PL1x4 Reinforcement	76.75 - 77.00	Auto	0.0000
L31	86	CCI-SFP-040075	76.75 - 77.00	Auto	0.0000
L31	87	CCI-SFP-040075	76.75 - 77.00	Auto	0.0000
L31	89	CCI-SFP-040075	76.75 - 77.00	Auto	0.0000
L32	39	PL1.25x5.5 Reinforcement	76.33 - 76.75	Auto	0.2072
L32	40	PL1.25x5.5 Reinforcement	76.33 - 76.75	Auto	0.2072
L32	41	PL1.25x5.5 Reinforcement	76.33 - 76.75	Auto	0.2072
L32	55	PL1x4 Reinforcement	76.33 - 76.75	Auto	0.0000
L32	56	PL1x4 Reinforcement	76.33 - 76.75	Auto	0.0000
L32	57	PL1x4 Reinforcement	76.33 - 76.75	Auto	0.0000
L32	86	CCI-SFP-040075	76.33 - 76.75	Auto	0.0000
L32	87	CCI-SFP-040075	76.33 - 76.75	Auto	0.0000
L32	89	CCI-SFP-040075	76.33 - 76.75	Auto	0.0000
L33	39	PL1.25x5.5 Reinforcement	76.08 - 76.33	Auto	0.2040
L33	40	PL1.25x5.5 Reinforcement	76.08 - 76.33	Auto	0.2040
L33	41	PL1.25x5.5 Reinforcement	76.08 - 76.33	Auto	0.2040
L33	55	PL1x4 Reinforcement	76.08 - 76.33	Auto	0.0000
L33	56	PL1x4 Reinforcement	76.08 - 76.33	Auto	0.0000
L33	57	PL1x4 Reinforcement	76.08 - 76.33	Auto	0.0000
L33	86	CCI-SFP-040075	76.08 - 76.33	Auto	0.0000
L33	87	CCI-SFP-040075	76.08 - 76.33	Auto	0.0000
L33	89	CCI-SFP-040075	76.08 - 76.33	Auto	0.0000
L34	39	PL1.25x5.5 Reinforcement	74.25 - 76.08	Auto	0.1817
L34	40	PL1.25x5.5 Reinforcement	74.25 - 76.08	Auto	0.1817
L34	41	PL1.25x5.5 Reinforcement	74.25 - 76.08	Auto	0.1817
L34	55	PL1x4 Reinforcement	74.25 - 76.08	Auto	0.0000
L34	56	PL1x4 Reinforcement	74.25 - 76.08	Auto	0.0000
L34	57	PL1x4 Reinforcement	74.25 - 76.08	Auto	0.0000
L34	81	CCI-SFP-045100	74.25 - 75.25	Auto	0.0000
L34	82	CCI-SFP-045100	74.25 - 75.25	Auto	0.0000
L34	84	CCI-SFP-040075	74.25 - 75.25	Auto	0.0000
L34	86	CCI-SFP-040075	75.33 - 76.08	Auto	0.0000

# tnxTower

**B+T Group**  
1717 S. Boulder, Suite 300  
Tulsa, OK 74119  
Phone: (918) 587-4630  
FAX: (918) 295-0265

**Job**  
79982.012.01 - WATERBURY,CT (BU# 876317)

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**Project**  
**Date**  
16:40:32 05/09/22

**Client**  
Crown Castle  
**Designed by**  
Jayaraj B

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L34	87	CCI-SFP-040075	75.33 - 76.08	Auto	0.0000
L34	89	CCI-SFP-040075	75.33 - 76.08	Auto	0.0000
L35	39	PL1.25x5.5 Reinforcement	74.00 - 74.25	Auto	0.2142
L35	40	PL1.25x5.5 Reinforcement	74.00 - 74.25	Auto	0.2142
L35	41	PL1.25x5.5 Reinforcement	74.00 - 74.25	Auto	0.2142
L35	55	PL1x4 Reinforcement	74.00 - 74.25	Auto	0.0000
L35	56	PL1x4 Reinforcement	74.00 - 74.25	Auto	0.0000
L35	57	PL1x4 Reinforcement	74.00 - 74.25	Auto	0.0000
L35	81	CCI-SFP-045100	74.00 - 74.25	Auto	0.0396
L35	82	CCI-SFP-045100	74.00 - 74.25	Auto	0.0396
L35	84	CCI-SFP-040075	74.00 - 74.25	Auto	0.0000
L36	39	PL1.25x5.5 Reinforcement	73.75 - 74.00	Auto	0.2118
L36	40	PL1.25x5.5 Reinforcement	73.75 - 74.00	Auto	0.2118
L36	41	PL1.25x5.5 Reinforcement	73.75 - 74.00	Auto	0.2118
L36	55	PL1x4 Reinforcement	73.75 - 74.00	Auto	0.0000
L36	56	PL1x4 Reinforcement	73.75 - 74.00	Auto	0.0000
L36	57	PL1x4 Reinforcement	73.75 - 74.00	Auto	0.0000
L36	81	CCI-SFP-045100	73.75 - 74.00	Auto	0.0367
L36	82	CCI-SFP-045100	73.75 - 74.00	Auto	0.0367
L36	84	CCI-SFP-040075	73.75 - 74.00	Auto	0.0000
L37	39	PL1.25x5.5 Reinforcement	73.50 - 73.75	Auto	0.2216
L37	40	PL1.25x5.5 Reinforcement	73.50 - 73.75	Auto	0.2216
L37	41	PL1.25x5.5 Reinforcement	73.50 - 73.75	Auto	0.2216
L37	55	PL1x4 Reinforcement	73.50 - 73.75	Auto	0.0000
L37	56	PL1x4 Reinforcement	73.50 - 73.75	Auto	0.0000
L37	57	PL1x4 Reinforcement	73.50 - 73.75	Auto	0.0000
L37	81	CCI-SFP-045100	73.50 - 73.75	Auto	0.0486
L37	82	CCI-SFP-045100	73.50 - 73.75	Auto	0.0486
L37	84	CCI-SFP-040075	73.50 - 73.75	Auto	0.0000
L38	39	PL1.25x5.5 Reinforcement	68.50 - 73.50	Auto	0.1778
L38	40	PL1.25x5.5 Reinforcement	68.50 - 73.50	Auto	0.1778
L38	41	PL1.25x5.5 Reinforcement	68.50 - 73.50	Auto	0.1778
L38	55	PL1x4 Reinforcement	68.50 - 73.50	Auto	0.0000
L38	56	PL1x4 Reinforcement	68.50 - 73.50	Auto	0.0000
L38	57	PL1x4 Reinforcement	68.50 - 73.50	Auto	0.0000
L38	81	CCI-SFP-045100	68.50 - 73.50	Auto	0.0052
L38	82	CCI-SFP-045100	68.50 - 73.50	Auto	0.0052
L38	84	CCI-SFP-040075	68.50 - 73.50	Auto	0.0000
L39	39	PL1.25x5.5 Reinforcement	63.50 - 68.50	Auto	0.1171
L39	40	PL1.25x5.5 Reinforcement	63.50 - 68.50	Auto	0.1171
L39	41	PL1.25x5.5 Reinforcement	63.50 - 68.50	Auto	0.1171
L39	55	PL1x4 Reinforcement	63.50 - 68.50	Auto	0.0000
L39	56	PL1x4 Reinforcement	63.50 - 68.50	Auto	0.0000
L39	57	PL1x4 Reinforcement	63.50 - 68.50	Auto	0.0000
L39	81	CCI-SFP-045100	63.50 - 68.50	Auto	0.0000
L39	82	CCI-SFP-045100	63.50 - 68.50	Auto	0.0000
L39	84	CCI-SFP-040075	63.50 - 68.50	Auto	0.0000
L40	39	PL1.25x5.5 Reinforcement	60.50 - 63.50	Auto	0.0661
L40	40	PL1.25x5.5 Reinforcement	60.50 - 63.50	Auto	0.0661
L40	41	PL1.25x5.5 Reinforcement	60.50 - 63.50	Auto	0.0661
L40	51	PL1x4 Reinforcement	60.50 - 62.25	Auto	0.0000
L40	52	PL1x4 Reinforcement	60.50 - 62.25	Auto	0.0000
L40	53	PL1x4 Reinforcement	60.50 - 62.25	Auto	0.0000
L40	55	PL1x4 Reinforcement	60.50 - 63.50	Auto	0.0000
L40	56	PL1x4 Reinforcement	60.50 - 63.50	Auto	0.0000
L40	57	PL1x4 Reinforcement	60.50 - 63.50	Auto	0.0000
L40	81	CCI-SFP-045100	60.50 - 63.50	Auto	0.0000
L40	82	CCI-SFP-045100	60.50 - 63.50	Auto	0.0000
L40	84	CCI-SFP-040075	60.50 - 63.50	Auto	0.0000
L41	39	PL1.25x5.5 Reinforcement	60.25 - 60.50	Auto	0.0504
L41	40	PL1.25x5.5 Reinforcement	60.25 - 60.50	Auto	0.0504

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L41	41	PL1.25x5.5 Reinforcement	60.25 - 60.50	Auto	0.0504
L41	51	PL1x4 Reinforcement	60.25 - 60.50	Auto	0.0000
L41	52	PL1x4 Reinforcement	60.25 - 60.50	Auto	0.0000
L41	53	PL1x4 Reinforcement	60.25 - 60.50	Auto	0.0000
L41	55	PL1x4 Reinforcement	60.25 - 60.50	Auto	0.0000
L41	56	PL1x4 Reinforcement	60.25 - 60.50	Auto	0.0000
L41	57	PL1x4 Reinforcement	60.25 - 60.50	Auto	0.0000
L41	81	CCI-SFP-045100	60.25 - 60.50	Auto	0.0000
L41	82	CCI-SFP-045100	60.25 - 60.50	Auto	0.0000
L41	84	CCI-SFP-040075	60.25 - 60.50	Auto	0.0000
L42	39	PL1.25x5.5 Reinforcement	59.50 - 60.25	Auto	0.0455
L42	40	PL1.25x5.5 Reinforcement	59.50 - 60.25	Auto	0.0455
L42	41	PL1.25x5.5 Reinforcement	59.50 - 60.25	Auto	0.0455
L42	51	PL1x4 Reinforcement	59.50 - 60.25	Auto	0.0000
L42	52	PL1x4 Reinforcement	59.50 - 60.25	Auto	0.0000
L42	53	PL1x4 Reinforcement	59.50 - 60.25	Auto	0.0000
L42	55	PL1x4 Reinforcement	59.50 - 60.25	Auto	0.0000
L42	56	PL1x4 Reinforcement	59.50 - 60.25	Auto	0.0000
L42	57	PL1x4 Reinforcement	59.50 - 60.25	Auto	0.0000
L42	81	CCI-SFP-045100	59.50 - 60.25	Auto	0.0000
L42	82	CCI-SFP-045100	59.50 - 60.25	Auto	0.0000
L42	84	CCI-SFP-040075	59.50 - 60.25	Auto	0.0000
L43	35	PL1.25x6.625 Reinforcement	59.25 - 59.50	Auto	0.2289
L43	36	PL1.25x6.625 Reinforcement	59.25 - 59.50	Auto	0.2289
L43	37	PL1.25x6.625 Reinforcement	59.25 - 59.50	Auto	0.2289
L43	51	PL1x4 Reinforcement	59.25 - 59.50	Auto	0.0000
L43	52	PL1x4 Reinforcement	59.25 - 59.50	Auto	0.0000
L43	53	PL1x4 Reinforcement	59.25 - 59.50	Auto	0.0000
L43	55	PL1x4 Reinforcement	59.25 - 59.50	Auto	0.0000
L43	56	PL1x4 Reinforcement	59.25 - 59.50	Auto	0.0000
L43	57	PL1x4 Reinforcement	59.25 - 59.50	Auto	0.0000
L43	81	CCI-SFP-045100	59.25 - 59.50	Auto	0.0000
L43	82	CCI-SFP-045100	59.25 - 59.50	Auto	0.0000
L43	84	CCI-SFP-040075	59.25 - 59.50	Auto	0.0000
L44	35	PL1.25x6.625 Reinforcement	54.25 - 59.25	Auto	0.1926
L44	36	PL1.25x6.625 Reinforcement	54.25 - 59.25	Auto	0.1926
L44	37	PL1.25x6.625 Reinforcement	54.25 - 59.25	Auto	0.1926
L44	51	PL1x4 Reinforcement	54.25 - 59.25	Auto	0.0000
L44	52	PL1x4 Reinforcement	54.25 - 59.25	Auto	0.0000
L44	53	PL1x4 Reinforcement	54.25 - 59.25	Auto	0.0000
L44	55	PL1x4 Reinforcement	58.75 - 59.25	Auto	0.0000
L44	56	PL1x4 Reinforcement	58.75 - 59.25	Auto	0.0000
L44	57	PL1x4 Reinforcement	58.75 - 59.25	Auto	0.0000
L44	81	CCI-SFP-045100	54.25 - 59.25	Auto	0.0000
L44	82	CCI-SFP-045100	54.25 - 59.25	Auto	0.0000
L44	84	CCI-SFP-040075	54.25 - 59.25	Auto	0.0000
L45	35	PL1.25x6.625 Reinforcement	45.80 - 54.25	Auto	0.1333
L45	36	PL1.25x6.625 Reinforcement	45.80 - 54.25	Auto	0.1333
L45	37	PL1.25x6.625 Reinforcement	45.80 - 54.25	Auto	0.1333
L45	51	PL1x4 Reinforcement	45.80 - 54.25	Auto	0.0000
L45	52	PL1x4 Reinforcement	45.80 - 54.25	Auto	0.0000
L45	53	PL1x4 Reinforcement	45.80 - 54.25	Auto	0.0000
L45	81	CCI-SFP-045100	45.80 - 54.25	Auto	0.0000
L45	82	CCI-SFP-045100	45.80 - 54.25	Auto	0.0000
L45	84	CCI-SFP-040075	45.80 - 54.25	Auto	0.0000
L46	35	PL1.25x6.625 Reinforcement	44.80 - 45.80	Auto	0.1157
L46	36	PL1.25x6.625 Reinforcement	44.80 - 45.80	Auto	0.1157
L46	37	PL1.25x6.625 Reinforcement	44.80 - 45.80	Auto	0.1157
L46	51	PL1x4 Reinforcement	44.80 - 45.80	Auto	0.0000
L46	52	PL1x4 Reinforcement	44.80 - 45.80	Auto	0.0000
L46	53	PL1x4 Reinforcement	44.80 - 45.80	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L46	76	CCI-SFP-045100	44.80 - 45.08	Auto	0.0000
L46	78	CCI-SFP-060100	44.80 - 45.17	Auto	0.0208
L46	79	CCI-SFP-060100	44.80 - 45.17	Auto	0.0208
L46	81	CCI-SFP-045100	45.25 - 45.80	Auto	0.0000
L46	82	CCI-SFP-045100	45.25 - 45.80	Auto	0.0000
L46	84	CCI-SFP-040075	45.25 - 45.80	Auto	0.0000
L47	35	PL1.25x6.625 Reinforcement	43.58 - 44.80	Auto	0.1069
L47	36	PL1.25x6.625 Reinforcement	43.58 - 44.80	Auto	0.1069
L47	37	PL1.25x6.625 Reinforcement	43.58 - 44.80	Auto	0.1069
L47	51	PL1x4 Reinforcement	43.58 - 44.80	Auto	0.0000
L47	52	PL1x4 Reinforcement	43.58 - 44.80	Auto	0.0000
L47	53	PL1x4 Reinforcement	43.58 - 44.80	Auto	0.0000
L47	76	CCI-SFP-045100	43.58 - 44.80	Auto	0.0000
L47	78	CCI-SFP-060100	43.58 - 44.80	Auto	0.0138
L47	79	CCI-SFP-060100	43.58 - 44.80	Auto	0.0138
L48	35	PL1.25x6.625 Reinforcement	43.33 - 43.58	Auto	0.1060
L48	36	PL1.25x6.625 Reinforcement	43.33 - 43.58	Auto	0.1060
L48	37	PL1.25x6.625 Reinforcement	43.33 - 43.58	Auto	0.1060
L48	51	PL1x4 Reinforcement	43.33 - 43.58	Auto	0.0000
L48	52	PL1x4 Reinforcement	43.33 - 43.58	Auto	0.0000
L48	53	PL1x4 Reinforcement	43.33 - 43.58	Auto	0.0000
L48	76	CCI-SFP-045100	43.33 - 43.58	Auto	0.0000
L48	78	CCI-SFP-060100	43.33 - 43.58	Auto	0.0129
L48	79	CCI-SFP-060100	43.33 - 43.58	Auto	0.0129
L49	35	PL1.25x6.625 Reinforcement	43.17 - 43.33	Auto	0.1044
L49	36	PL1.25x6.625 Reinforcement	43.17 - 43.33	Auto	0.1044
L49	37	PL1.25x6.625 Reinforcement	43.17 - 43.33	Auto	0.1044
L49	51	PL1x4 Reinforcement	43.17 - 43.33	Auto	0.0000
L49	52	PL1x4 Reinforcement	43.17 - 43.33	Auto	0.0000
L49	53	PL1x4 Reinforcement	43.17 - 43.33	Auto	0.0000
L49	76	CCI-SFP-045100	43.17 - 43.33	Auto	0.0000
L49	78	CCI-SFP-060100	43.17 - 43.33	Auto	0.0111
L49	79	CCI-SFP-060100	43.17 - 43.33	Auto	0.0111
L50	35	PL1.25x6.625 Reinforcement	42.92 - 43.17	Auto	0.1381
L50	36	PL1.25x6.625 Reinforcement	42.92 - 43.17	Auto	0.1381
L50	37	PL1.25x6.625 Reinforcement	42.92 - 43.17	Auto	0.1381
L50	51	PL1x4 Reinforcement	42.92 - 43.17	Auto	0.0000
L50	52	PL1x4 Reinforcement	42.92 - 43.17	Auto	0.0000
L50	53	PL1x4 Reinforcement	42.92 - 43.17	Auto	0.0000
L50	76	CCI-SFP-045100	42.92 - 43.17	Auto	0.0000
L50	78	CCI-SFP-060100	42.92 - 43.17	Auto	0.0483
L50	79	CCI-SFP-060100	42.92 - 43.17	Auto	0.0483
L51	35	PL1.25x6.625 Reinforcement	39.00 - 42.92	Auto	0.1113
L51	36	PL1.25x6.625 Reinforcement	39.00 - 42.92	Auto	0.1113
L51	37	PL1.25x6.625 Reinforcement	39.00 - 42.92	Auto	0.1113
L51	49	PL1x4 Reinforcement	39.00 - 40.75	Auto	0.0000
L51	51	PL1x4 Reinforcement	39.00 - 42.92	Auto	0.0000
L51	52	PL1x4 Reinforcement	39.00 - 42.92	Auto	0.0000
L51	53	PL1x4 Reinforcement	39.00 - 42.92	Auto	0.0000
L51	76	CCI-SFP-045100	39.00 - 42.92	Auto	0.0000
L51	78	CCI-SFP-060100	39.00 - 42.92	Auto	0.0187
L51	79	CCI-SFP-060100	39.00 - 42.92	Auto	0.0187
L52	35	PL1.25x6.625 Reinforcement	38.75 - 39.00	Auto	0.1098
L52	36	PL1.25x6.625 Reinforcement	38.75 - 39.00	Auto	0.1098
L52	37	PL1.25x6.625 Reinforcement	38.75 - 39.00	Auto	0.1098
L52	49	PL1x4 Reinforcement	38.75 - 39.00	Auto	0.0000
L52	51	PL1x4 Reinforcement	38.75 - 39.00	Auto	0.0000
L52	52	PL1x4 Reinforcement	38.75 - 39.00	Auto	0.0000
L52	53	PL1x4 Reinforcement	38.75 - 39.00	Auto	0.0000
L52	76	CCI-SFP-045100	38.75 - 39.00	Auto	0.0000
L52	78	CCI-SFP-060100	38.75 - 39.00	Auto	0.0171



**tnxTower**

**B+T Group**  
 1717 S. Boulder, Suite 300  
 Tulsa, OK 74119  
 Phone: (918) 587-4630  
 FAX: (918) 295-0265

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L52	79	CCI-SFP-060100	38.75 - 39.00	Auto	0.0171
L53	35	PL1.25x6.625 Reinforcement	37.17 - 38.75	Auto	0.0974
L53	36	PL1.25x6.625 Reinforcement	37.17 - 38.75	Auto	0.0974
L53	37	PL1.25x6.625 Reinforcement	37.17 - 38.75	Auto	0.0974
L53	49	PL1x4 Reinforcement	37.17 - 38.75	Auto	0.0000
L53	51	PL1x4 Reinforcement	37.17 - 38.75	Auto	0.0000
L53	52	PL1x4 Reinforcement	37.17 - 38.75	Auto	0.0000
L53	53	PL1x4 Reinforcement	37.17 - 38.75	Auto	0.0000
L53	76	CCI-SFP-045100	37.17 - 38.75	Auto	0.0000
L53	78	CCI-SFP-060100	37.17 - 38.75	Auto	0.0038
L53	79	CCI-SFP-060100	37.17 - 38.75	Auto	0.0038
L54	35	PL1.25x6.625 Reinforcement	36.92 - 37.17	Auto	0.0698
L54	36	PL1.25x6.625 Reinforcement	36.92 - 37.17	Auto	0.0698
L54	37	PL1.25x6.625 Reinforcement	36.92 - 37.17	Auto	0.0698
L54	49	PL1x4 Reinforcement	36.92 - 37.17	Auto	0.0000
L54	51	PL1x4 Reinforcement	36.92 - 37.17	Auto	0.0000
L54	52	PL1x4 Reinforcement	36.92 - 37.17	Auto	0.0000
L54	53	PL1x4 Reinforcement	36.92 - 37.17	Auto	0.0000
L54	76	CCI-SFP-045100	36.92 - 37.17	Auto	0.0000
L54	78	CCI-SFP-060100	36.92 - 37.17	Auto	0.0000
L54	79	CCI-SFP-060100	36.92 - 37.17	Auto	0.0000
L55	35	PL1.25x6.625 Reinforcement	34.00 - 36.92	Auto	0.0572
L55	36	PL1.25x6.625 Reinforcement	34.00 - 36.92	Auto	0.0572
L55	37	PL1.25x6.625 Reinforcement	34.00 - 36.92	Auto	0.0572
L55	47	PL1x4 Reinforcement	34.00 - 35.75	Auto	0.0000
L55	48	PL1x4 Reinforcement	34.00 - 35.75	Auto	0.0000
L55	49	PL1x4 Reinforcement	34.00 - 36.92	Auto	0.0000
L55	51	PL1x4 Reinforcement	34.00 - 36.92	Auto	0.0000
L55	52	PL1x4 Reinforcement	34.00 - 36.92	Auto	0.0000
L55	53	PL1x4 Reinforcement	34.00 - 36.92	Auto	0.0000
L55	72	CCI-SFP-045100	34.00 - 35.08	Auto	0.0000
L55	74	CCI-SFP-045100	34.00 - 35.08	Auto	0.0000
L55	76	CCI-SFP-045100	34.00 - 36.92	Auto	0.0000
L55	78	CCI-SFP-060100	35.17 - 36.92	Auto	0.0000
L55	79	CCI-SFP-060100	35.17 - 36.92	Auto	0.0000
L56	35	PL1.25x6.625 Reinforcement	33.75 - 34.00	Auto	0.0394
L56	36	PL1.25x6.625 Reinforcement	33.75 - 34.00	Auto	0.0394
L56	37	PL1.25x6.625 Reinforcement	33.75 - 34.00	Auto	0.0394
L56	47	PL1x4 Reinforcement	33.75 - 34.00	Auto	0.0000
L56	48	PL1x4 Reinforcement	33.75 - 34.00	Auto	0.0000
L56	49	PL1x4 Reinforcement	33.75 - 34.00	Auto	0.0000
L56	51	PL1x4 Reinforcement	33.75 - 34.00	Auto	0.0000
L56	52	PL1x4 Reinforcement	33.75 - 34.00	Auto	0.0000
L56	53	PL1x4 Reinforcement	33.75 - 34.00	Auto	0.0000
L56	72	CCI-SFP-045100	33.75 - 34.00	Auto	0.0000
L56	74	CCI-SFP-045100	33.75 - 34.00	Auto	0.0000
L56	76	CCI-SFP-045100	33.75 - 34.00	Auto	0.0000
L57	35	PL1.25x6.625 Reinforcement	29.75 - 33.75	Auto	0.0174
L57	36	PL1.25x6.625 Reinforcement	29.75 - 33.75	Auto	0.0174
L57	37	PL1.25x6.625 Reinforcement	29.75 - 33.75	Auto	0.0174
L57	47	PL1x4 Reinforcement	29.75 - 33.75	Auto	0.0000
L57	48	PL1x4 Reinforcement	29.75 - 33.75	Auto	0.0000
L57	49	PL1x4 Reinforcement	29.75 - 33.75	Auto	0.0000
L57	51	PL1x4 Reinforcement	32.25 - 33.75	Auto	0.0000
L57	52	PL1x4 Reinforcement	32.25 - 33.75	Auto	0.0000
L57	53	PL1x4 Reinforcement	32.25 - 33.75	Auto	0.0000
L57	72	CCI-SFP-045100	29.75 - 33.75	Auto	0.0000
L57	74	CCI-SFP-045100	29.75 - 33.75	Auto	0.0000
L57	76	CCI-SFP-045100	29.75 - 33.75	Auto	0.0000
L58	29	PL1.25x6.875 Reinforcement	29.50 - 29.75	Auto	0.0367
L58	30	PL1.25x6.875 Reinforcement	29.50 - 29.75	Auto	0.0367

**tnxTower**

**B+T Group**  
 1717 S. Boulder, Suite 300  
 Tulsa, OK 74119  
 Phone: (918) 587-4630  
 FAX: (918) 295-0265

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Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L58	31	PL1.25x6.875 Reinforcement	29.50 - 29.75	Auto	0.0367
L58	47	PL1x4 Reinforcement	29.50 - 29.75	Auto	0.0000
L58	48	PL1x4 Reinforcement	29.50 - 29.75	Auto	0.0000
L58	49	PL1x4 Reinforcement	29.50 - 29.75	Auto	0.0000
L58	72	CCI-SFP-045100	29.50 - 29.75	Auto	0.0000
L58	74	CCI-SFP-045100	29.50 - 29.75	Auto	0.0000
L58	76	CCI-SFP-045100	29.50 - 29.75	Auto	0.0000
L59	29	PL1.25x6.875 Reinforcement	24.50 - 29.50	Auto	0.0123
L59	30	PL1.25x6.875 Reinforcement	24.50 - 29.50	Auto	0.0123
L59	31	PL1.25x6.875 Reinforcement	24.50 - 29.50	Auto	0.0123
L59	47	PL1x4 Reinforcement	24.50 - 29.50	Auto	0.0000
L59	48	PL1x4 Reinforcement	24.50 - 29.50	Auto	0.0000
L59	49	PL1x4 Reinforcement	24.50 - 29.50	Auto	0.0000
L59	67	CCI-SFP-060100	24.50 - 25.00	Auto	0.0000
L59	68	CCI-SFP-060100	24.50 - 25.00	Auto	0.0000
L59	70	CCI-SFP-060100	24.50 - 25.00	Auto	0.0000
L59	72	CCI-SFP-045100	24.50 - 29.50	Auto	0.0000
L59	74	CCI-SFP-045100	25.08 - 29.50	Auto	0.0000
L59	76	CCI-SFP-045100	25.08 - 29.50	Auto	0.0000
L60	29	PL1.25x6.875 Reinforcement	23.00 - 24.50	Auto	0.0000
L60	30	PL1.25x6.875 Reinforcement	23.00 - 24.50	Auto	0.0000
L60	31	PL1.25x6.875 Reinforcement	23.00 - 24.50	Auto	0.0000
L60	47	PL1x4 Reinforcement	23.00 - 24.50	Auto	0.0000
L60	48	PL1x4 Reinforcement	23.00 - 24.50	Auto	0.0000
L60	49	PL1x4 Reinforcement	23.00 - 24.50	Auto	0.0000
L60	67	CCI-SFP-060100	23.00 - 24.50	Auto	0.0000
L60	68	CCI-SFP-060100	23.00 - 24.50	Auto	0.0000
L60	70	CCI-SFP-060100	23.00 - 24.50	Auto	0.0000
L60	72	CCI-SFP-045100	23.00 - 24.50	Auto	0.0000
L61	29	PL1.25x6.875 Reinforcement	22.75 - 23.00	Auto	0.0236
L61	30	PL1.25x6.875 Reinforcement	22.75 - 23.00	Auto	0.0236
L61	31	PL1.25x6.875 Reinforcement	22.75 - 23.00	Auto	0.0236
L61	47	PL1x4 Reinforcement	22.75 - 23.00	Auto	0.0000
L61	48	PL1x4 Reinforcement	22.75 - 23.00	Auto	0.0000
L61	49	PL1x4 Reinforcement	22.75 - 23.00	Auto	0.0000
L61	67	CCI-SFP-060100	22.75 - 23.00	Auto	0.0000
L61	68	CCI-SFP-060100	22.75 - 23.00	Auto	0.0000
L61	70	CCI-SFP-060100	22.75 - 23.00	Auto	0.0000
L61	72	CCI-SFP-045100	22.75 - 23.00	Auto	0.0000
L62	29	PL1.25x6.875 Reinforcement	21.58 - 22.75	Auto	0.0181
L62	30	PL1.25x6.875 Reinforcement	21.58 - 22.75	Auto	0.0181
L62	31	PL1.25x6.875 Reinforcement	21.58 - 22.75	Auto	0.0181
L62	47	PL1x4 Reinforcement	21.58 - 22.75	Auto	0.0000
L62	48	PL1x4 Reinforcement	21.58 - 22.75	Auto	0.0000
L62	49	PL1x4 Reinforcement	21.58 - 22.75	Auto	0.0000
L62	67	CCI-SFP-060100	21.58 - 22.75	Auto	0.0000
L62	68	CCI-SFP-060100	21.58 - 22.75	Auto	0.0000
L62	70	CCI-SFP-060100	21.58 - 22.75	Auto	0.0000
L62	72	CCI-SFP-045100	21.58 - 22.75	Auto	0.0000
L63	29	PL1.25x6.875 Reinforcement	21.33 - 21.58	Auto	0.0000
L63	30	PL1.25x6.875 Reinforcement	21.33 - 21.58	Auto	0.0000
L63	31	PL1.25x6.875 Reinforcement	21.33 - 21.58	Auto	0.0000
L63	47	PL1x4 Reinforcement	21.33 - 21.58	Auto	0.0000
L63	48	PL1x4 Reinforcement	21.33 - 21.58	Auto	0.0000
L63	49	PL1x4 Reinforcement	21.33 - 21.58	Auto	0.0000
L63	67	CCI-SFP-060100	21.33 - 21.58	Auto	0.0000
L63	68	CCI-SFP-060100	21.33 - 21.58	Auto	0.0000
L63	70	CCI-SFP-060100	21.33 - 21.58	Auto	0.0000
L63	72	CCI-SFP-045100	21.33 - 21.58	Auto	0.0000
L64	29	PL1.25x6.875 Reinforcement	16.33 - 21.33	Auto	0.0000
L64	30	PL1.25x6.875 Reinforcement	16.33 - 21.33	Auto	0.0000

# tnxTower

**B+T Group**  
1717 S. Boulder, Suite 300  
Tulsa, OK 74119  
Phone: (918) 587-4630  
FAX: (918) 295-0265

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Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L64	31	PL1.25x6.875 Reinforcement	16.33 - 21.33	Auto	0.0000
L64	32	PL1.25x6.875 Reinforcement	16.33 - 16.42	Auto	0.0000
L64	33	PL1.25x6.875 Reinforcement	16.33 - 16.42	Auto	0.0000
L64	47	PL1x4 Reinforcement	16.33 - 21.33	Auto	0.0000
L64	48	PL1x4 Reinforcement	16.33 - 21.33	Auto	0.0000
L64	49	PL1x4 Reinforcement	16.33 - 21.33	Auto	0.0000
L64	67	CCI-SFP-060100	16.33 - 21.33	Auto	0.0000
L64	68	CCI-SFP-060100	16.33 - 21.33	Auto	0.0000
L64	70	CCI-SFP-060100	16.33 - 21.33	Auto	0.0000
L64	72	CCI-SFP-045100	20.08 - 21.33	Auto	0.0000
L65	29	PL1.25x6.875 Reinforcement	12.92 - 16.33	Auto	0.0000
L65	30	PL1.25x6.875 Reinforcement	12.92 - 16.33	Auto	0.0000
L65	31	PL1.25x6.875 Reinforcement	12.92 - 16.33	Auto	0.0000
L65	32	PL1.25x6.875 Reinforcement	12.92 - 16.33	Auto	0.0000
L65	33	PL1.25x6.875 Reinforcement	12.92 - 16.33	Auto	0.0000
L65	47	PL1x4 Reinforcement	12.92 - 16.33	Auto	0.0000
L65	48	PL1x4 Reinforcement	12.92 - 16.33	Auto	0.0000
L65	49	PL1x4 Reinforcement	12.92 - 16.33	Auto	0.0000
L65	67	CCI-SFP-060100	12.92 - 16.33	Auto	0.0000
L65	68	CCI-SFP-060100	12.92 - 16.33	Auto	0.0000
L65	70	CCI-SFP-060100	12.92 - 16.33	Auto	0.0000
L66	29	PL1.25x6.875 Reinforcement	12.67 - 12.92	Auto	0.0000
L66	30	PL1.25x6.875 Reinforcement	12.67 - 12.92	Auto	0.0000
L66	31	PL1.25x6.875 Reinforcement	12.67 - 12.92	Auto	0.0000
L66	32	PL1.25x6.875 Reinforcement	12.67 - 12.92	Auto	0.0000
L66	33	PL1.25x6.875 Reinforcement	12.67 - 12.92	Auto	0.0000
L66	47	PL1x4 Reinforcement	12.67 - 12.92	Auto	0.0000
L66	48	PL1x4 Reinforcement	12.67 - 12.92	Auto	0.0000
L66	49	PL1x4 Reinforcement	12.67 - 12.92	Auto	0.0000
L66	67	CCI-SFP-060100	12.67 - 12.92	Auto	0.0000
L66	68	CCI-SFP-060100	12.67 - 12.92	Auto	0.0000
L66	70	CCI-SFP-060100	12.67 - 12.92	Auto	0.0000
L67	29	PL1.25x6.875 Reinforcement	12.50 - 12.67	Auto	0.0000
L67	30	PL1.25x6.875 Reinforcement	12.50 - 12.67	Auto	0.0000
L67	31	PL1.25x6.875 Reinforcement	12.50 - 12.67	Auto	0.0000
L67	32	PL1.25x6.875 Reinforcement	12.50 - 12.67	Auto	0.0000
L67	33	PL1.25x6.875 Reinforcement	12.50 - 12.67	Auto	0.0000
L67	47	PL1x4 Reinforcement	12.50 - 12.67	Auto	0.0000
L67	48	PL1x4 Reinforcement	12.50 - 12.67	Auto	0.0000
L67	49	PL1x4 Reinforcement	12.50 - 12.67	Auto	0.0000
L67	67	CCI-SFP-060100	12.50 - 12.67	Auto	0.0000
L67	68	CCI-SFP-060100	12.50 - 12.67	Auto	0.0000
L67	70	CCI-SFP-060100	12.50 - 12.67	Auto	0.0000
L68	29	PL1.25x6.875 Reinforcement	12.25 - 12.50	Auto	0.0000
L68	30	PL1.25x6.875 Reinforcement	12.25 - 12.50	Auto	0.0000
L68	31	PL1.25x6.875 Reinforcement	12.25 - 12.50	Auto	0.0000
L68	32	PL1.25x6.875 Reinforcement	12.25 - 12.50	Auto	0.0000
L68	33	PL1.25x6.875 Reinforcement	12.25 - 12.50	Auto	0.0000
L68	47	PL1x4 Reinforcement	12.25 - 12.50	Auto	0.0000
L68	48	PL1x4 Reinforcement	12.25 - 12.50	Auto	0.0000
L68	49	PL1x4 Reinforcement	12.25 - 12.50	Auto	0.0000
L68	67	CCI-SFP-060100	12.25 - 12.50	Auto	0.0000
L68	68	CCI-SFP-060100	12.25 - 12.50	Auto	0.0000
L68	70	CCI-SFP-060100	12.25 - 12.50	Auto	0.0000
L69	29	PL1.25x6.875 Reinforcement	12.00 - 12.25	Auto	0.0000
L69	30	PL1.25x6.875 Reinforcement	12.00 - 12.25	Auto	0.0000
L69	31	PL1.25x6.875 Reinforcement	12.00 - 12.25	Auto	0.0000
L69	32	PL1.25x6.875 Reinforcement	12.00 - 12.25	Auto	0.0000
L69	33	PL1.25x6.875 Reinforcement	12.00 - 12.25	Auto	0.0000
L69	47	PL1x4 Reinforcement	12.00 - 12.25	Auto	0.0000
L69	48	PL1x4 Reinforcement	12.00 - 12.25	Auto	0.0000



Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L69	49	PL1x4 Reinforcement	12.00 - 12.25	Auto	0.0000
L69	67	CCI-SFP-060100	12.00 - 12.25	Auto	0.0000
L69	68	CCI-SFP-060100	12.00 - 12.25	Auto	0.0000
L69	70	CCI-SFP-060100	12.00 - 12.25	Auto	0.0000
L70	29	PL1.25x6.875 Reinforcement	11.75 - 12.00	Auto	0.0000
L70	30	PL1.25x6.875 Reinforcement	11.75 - 12.00	Auto	0.0000
L70	31	PL1.25x6.875 Reinforcement	11.75 - 12.00	Auto	0.0000
L70	32	PL1.25x6.875 Reinforcement	11.75 - 12.00	Auto	0.0000
L70	33	PL1.25x6.875 Reinforcement	11.75 - 12.00	Auto	0.0000
L70	47	PL1x4 Reinforcement	11.75 - 12.00	Auto	0.0000
L70	48	PL1x4 Reinforcement	11.75 - 12.00	Auto	0.0000
L70	49	PL1x4 Reinforcement	11.75 - 12.00	Auto	0.0000
L70	67	CCI-SFP-060100	11.75 - 12.00	Auto	0.0000
L70	68	CCI-SFP-060100	11.75 - 12.00	Auto	0.0000
L70	70	CCI-SFP-060100	11.75 - 12.00	Auto	0.0000
L71	29	PL1.25x6.875 Reinforcement	8.50 - 11.75	Auto	0.0000
L71	30	PL1.25x6.875 Reinforcement	8.50 - 11.75	Auto	0.0000
L71	31	PL1.25x6.875 Reinforcement	9.17 - 11.75	Auto	0.0000
L71	32	PL1.25x6.875 Reinforcement	8.50 - 11.75	Auto	0.0000
L71	33	PL1.25x6.875 Reinforcement	8.50 - 11.75	Auto	0.0000
L71	47	PL1x4 Reinforcement	10.75 - 11.75	Auto	0.0000
L71	48	PL1x4 Reinforcement	10.75 - 11.75	Auto	0.0000
L71	49	PL1x4 Reinforcement	10.75 - 11.75	Auto	0.0000
L71	63	Transition Stiffener 1x7	8.50 - 10.50	Auto	0.0000
L71	64	Transition Stiffener 1x7	8.50 - 10.50	Auto	0.0000
L71	65	Transition Stiffener 1x7	8.50 - 10.50	Auto	0.0000
L71	67	CCI-SFP-060100	8.50 - 11.75	Auto	0.0000
L71	68	CCI-SFP-060100	8.50 - 11.75	Auto	0.0000
L71	70	CCI-SFP-060100	10.00 - 11.75	Auto	0.0000
L72	29	PL1.25x6.875 Reinforcement	8.25 - 8.50	Auto	0.0000
L72	30	PL1.25x6.875 Reinforcement	8.25 - 8.50	Auto	0.0000
L72	32	PL1.25x6.875 Reinforcement	8.25 - 8.50	Auto	0.0000
L72	33	PL1.25x6.875 Reinforcement	8.25 - 8.50	Auto	0.0000
L72	63	Transition Stiffener 1x7	8.25 - 8.50	Auto	0.0000
L72	64	Transition Stiffener 1x7	8.25 - 8.50	Auto	0.0000
L72	65	Transition Stiffener 1x7	8.25 - 8.50	Auto	0.0000
L72	67	CCI-SFP-060100	8.25 - 8.50	Auto	0.0000
L72	68	CCI-SFP-060100	8.25 - 8.50	Auto	0.0000
L73	29	PL1.25x6.875 Reinforcement	7.00 - 8.25	Auto	0.0000
L73	30	PL1.25x6.875 Reinforcement	7.00 - 8.25	Auto	0.0000
L73	32	PL1.25x6.875 Reinforcement	7.00 - 8.25	Auto	0.0000
L73	33	PL1.25x6.875 Reinforcement	7.00 - 8.25	Auto	0.0000
L73	63	Transition Stiffener 1x7	7.00 - 8.25	Auto	0.0000
L73	64	Transition Stiffener 1x7	7.00 - 8.25	Auto	0.0000
L73	65	Transition Stiffener 1x7	7.00 - 8.25	Auto	0.0000
L73	67	CCI-SFP-060100	7.00 - 8.25	Auto	0.0000
L73	68	CCI-SFP-060100	7.00 - 8.25	Auto	0.0000
L74	29	PL1.25x6.875 Reinforcement	6.75 - 7.00	Auto	0.0000
L74	30	PL1.25x6.875 Reinforcement	6.75 - 7.00	Auto	0.0000
L74	32	PL1.25x6.875 Reinforcement	6.75 - 7.00	Auto	0.0000
L74	33	PL1.25x6.875 Reinforcement	6.75 - 7.00	Auto	0.0000
L74	63	Transition Stiffener 1x7	6.75 - 7.00	Auto	0.0000
L74	64	Transition Stiffener 1x7	6.75 - 7.00	Auto	0.0000
L74	65	Transition Stiffener 1x7	6.75 - 7.00	Auto	0.0000
L74	67	CCI-SFP-060100	6.75 - 7.00	Auto	0.0000
L74	68	CCI-SFP-060100	6.75 - 7.00	Auto	0.0000
L75	29	PL1.25x6.875 Reinforcement	1.75 - 6.75	Auto	0.0000
L75	30	PL1.25x6.875 Reinforcement	1.75 - 6.75	Auto	0.0000
L75	32	PL1.25x6.875 Reinforcement	1.75 - 6.75	Auto	0.0000
L75	33	PL1.25x6.875 Reinforcement	1.75 - 6.75	Auto	0.0000
L75	63	Transition Stiffener 1x7	1.75 - 6.75	Auto	0.0000

<p><b>tnxTower</b></p> <p><b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265</p>	<p><b>Job</b></p> <p>79982.012.01 - WATERBURY,CT (BU# 876317)</p>	<p><b>Page</b></p> <p>59 of 95</p>
	<p><b>Project</b></p>	<p><b>Date</b></p> <p>16:40:32 05/09/22</p>
	<p><b>Client</b></p> <p>Crown Castle</p>	<p><b>Designed by</b></p> <p>Jayaraj B</p>

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L75	64	Transition Stiffener 1x7	1.75 - 6.75	Auto	0.0000
L75	65	Transition Stiffener 1x7	1.75 - 6.75	Auto	0.0000
L75	67	CCI-SFP-060100	5.00 - 6.75	Auto	0.0000
L75	68	CCI-SFP-060100	5.00 - 6.75	Auto	0.0000
L76	29	PL1.25x6.875 Reinforcement	0.00 - 1.75	Auto	0.0000
L76	30	PL1.25x6.875 Reinforcement	0.00 - 1.75	Auto	0.0000
L76	32	PL1.25x6.875 Reinforcement	0.00 - 1.75	Auto	0.0000
L76	33	PL1.25x6.875 Reinforcement	0.00 - 1.75	Auto	0.0000
L76	63	Transition Stiffener 1x7	0.00 - 1.75	Auto	0.0000
L76	64	Transition Stiffener 1x7	0.00 - 1.75	Auto	0.0000
L76	65	Transition Stiffener 1x7	0.00 - 1.75	Auto	0.0000

### Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C <sub>AA</sub> Front	C <sub>AA</sub> Side	Weight	
			Horz Lateral	Vert						
			ft	ft	°	ft	ft <sup>2</sup>	ft <sup>2</sup>	K	
EPBQ-654L8H8-L2 w/ Mount Pipe	A	From Leg	4.000	0.000	0.000	144.000	No Ice	14.860	6.250	0.119
			0.000				1/2" Ice	15.720	7.020	0.228
			-1.000				1" Ice	16.590	7.800	0.351
EPBQ-654L8H8-L2 w/ Mount Pipe	B	From Leg	4.000	0.000	0.000	144.000	No Ice	14.860	6.250	0.119
			0.000				1/2" Ice	15.720	7.020	0.228
			-1.000				1" Ice	16.590	7.800	0.351
EPBQ-654L8H8-L2 w/ Mount Pipe	C	From Leg	4.000	0.000	0.000	144.000	No Ice	14.860	6.250	0.119
			0.000				1/2" Ice	15.720	7.020	0.228
			-1.000				1" Ice	16.590	7.800	0.351
RRUS 4478 B14	A	From Leg	4.000	0.000	0.000	144.000	No Ice	1.843	1.059	0.060
			0.000				1/2" Ice	2.012	1.197	0.076
			-1.000				1" Ice	2.190	1.342	0.094
RRUS 4478 B14	B	From Leg	4.000	0.000	0.000	144.000	No Ice	1.843	1.059	0.060
			0.000				1/2" Ice	2.012	1.197	0.076
			-1.000				1" Ice	2.190	1.342	0.094
RRUS 4478 B14	C	From Leg	4.000	0.000	0.000	144.000	No Ice	1.843	1.059	0.060
			0.000				1/2" Ice	2.012	1.197	0.076
			-1.000				1" Ice	2.190	1.342	0.094
RADIO 4415 B30	A	From Leg	4.000	0.000	0.000	144.000	No Ice	1.643	0.639	0.043
			0.000				1/2" Ice	1.803	0.750	0.055
			-1.000				1" Ice	1.971	0.867	0.069
RADIO 4415 B30	B	From Leg	4.000	0.000	0.000	144.000	No Ice	1.643	0.639	0.043
			0.000				1/2" Ice	1.803	0.750	0.055
			-1.000				1" Ice	1.971	0.867	0.069
RADIO 4415 B30	C	From Leg	4.000	0.000	0.000	144.000	No Ice	1.643	0.639	0.043
			0.000				1/2" Ice	1.803	0.750	0.055
			-1.000				1" Ice	1.971	0.867	0.069
RRUS 8843 B2/B66A	A	From Leg	4.000	0.000	0.000	144.000	No Ice	1.639	1.353	0.072
			0.000				1/2" Ice	1.799	1.500	0.090
			-1.000				1" Ice	1.966	1.655	0.110
RRUS 8843 B2/B66A	B	From Leg	4.000	0.000	0.000	144.000	No Ice	1.639	1.353	0.072
			0.000				1/2" Ice	1.799	1.500	0.090
			-1.000				1" Ice	1.966	1.655	0.110

<b>Job</b>	79982.012.01 - WATERBURY,CT (BU# 876317)	<b>Page</b>	60 of 95
<b>Project</b>		<b>Date</b>	16:40:32 05/09/22
<b>Client</b>	Crown Castle	<b>Designed by</b>	Jayaraj B

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C <sub>AA</sub> Front	C <sub>AA</sub> Side	Weight	
			Horz	Vert						ft
RRUS 8843 B2/B66A	C	From Leg	4.000	0.000	0.000	144.000	No Ice	1.639	1.353	0.072
			0.000				1/2" Ice	1.799	1.500	0.090
			-1.000				1" Ice	1.966	1.655	0.110
RRUS 4449 B5/B12	A	From Leg	4.000	0.000	0.000	144.000	No Ice	1.968	1.408	0.071
			0.000				1/2" Ice	2.144	1.564	0.090
			-1.000				1" Ice	2.328	1.727	0.111
RRUS 4449 B5/B12	B	From Leg	4.000	0.000	0.000	144.000	No Ice	1.968	1.408	0.071
			0.000				1/2" Ice	2.144	1.564	0.090
			-1.000				1" Ice	2.328	1.727	0.111
RRUS 4449 B5/B12	C	From Leg	4.000	0.000	0.000	144.000	No Ice	1.968	1.408	0.071
			0.000				1/2" Ice	2.144	1.564	0.090
			-1.000				1" Ice	2.328	1.727	0.111
DC6-48-60-18-8F	A	From Leg	4.000	0.000	0.000	144.000	No Ice	0.850	0.850	0.019
			0.000				1/2" Ice	1.356	1.356	0.036
			-1.000				1" Ice	1.532	1.532	0.055
DC6-48-60-18-8F	C	From Leg	4.000	0.000	0.000	144.000	No Ice	0.850	0.850	0.019
			0.000				1/2" Ice	1.356	1.356	0.036
			-1.000				1" Ice	1.532	1.532	0.055
AIR 6419 B77G_CCIV3 w/ Mount Pipe	A	From Leg	4.000	0.000	0.000	144.000	No Ice	4.380	2.760	0.057
			0.000				1/2" Ice	4.708	3.191	0.096
			1.000				1" Ice	5.045	3.639	0.140
AIR 6419 B77G_CCIV3 w/ Mount Pipe	B	From Leg	4.000	0.000	0.000	144.000	No Ice	4.380	2.760	0.057
			0.000				1/2" Ice	4.708	3.191	0.096
			1.000				1" Ice	5.045	3.639	0.140
AIR 6419 B77G_CCIV3 w/ Mount Pipe	C	From Leg	4.000	0.000	0.000	144.000	No Ice	4.380	2.760	0.057
			0.000				1/2" Ice	4.708	3.191	0.096
			1.000				1" Ice	5.045	3.639	0.140
AIR 6449 B77D_CCIV2 w/ Mount Pipe	A	From Leg	4.000	0.000	0.000	144.000	No Ice	3.580	2.310	0.095
			0.000				1/2" Ice	3.920	2.600	0.130
			-3.000				1" Ice	4.270	2.910	0.173
AIR 6449 B77D_CCIV2 w/ Mount Pipe	B	From Leg	4.000	0.000	0.000	144.000	No Ice	3.580	2.310	0.095
			0.000				1/2" Ice	3.920	2.600	0.130
			-3.000				1" Ice	4.270	2.910	0.173
AIR 6449 B77D_CCIV2 w/ Mount Pipe	C	From Leg	4.000	0.000	0.000	144.000	No Ice	3.580	2.310	0.095
			0.000				1/2" Ice	3.920	2.600	0.130
			-3.000				1" Ice	4.270	2.910	0.173
QD8616-7 w/ Mount Pipe	A	From Leg	4.000	0.000	0.000	144.000	No Ice	16.930	9.310	0.183
			0.000				1/2" Ice	17.870	10.170	0.308
			-1.000				1" Ice	18.830	11.050	0.448
QD8616-7 w/ Mount Pipe	B	From Leg	4.000	0.000	0.000	144.000	No Ice	16.930	9.310	0.183
			0.000				1/2" Ice	17.870	10.170	0.308
			-1.000				1" Ice	18.830	11.050	0.448
QD8616-7 w/ Mount Pipe	C	From Leg	4.000	0.000	0.000	144.000	No Ice	16.930	9.310	0.183
			0.000				1/2" Ice	17.870	10.170	0.308
			-1.000				1" Ice	18.830	11.050	0.448
2012 B29	A	From Leg	4.000	0.000	0.000	144.000	No Ice	1.856	0.695	0.043
			0.000				1/2" Ice	2.027	0.814	0.056
			-1.000				1" Ice	2.204	0.939	0.072
2012 B29	B	From Leg	4.000	0.000	0.000	144.000	No Ice	1.856	0.695	0.043
			0.000				1/2" Ice	2.027	0.814	0.056
			-1.000				1" Ice	2.204	0.939	0.072
2012 B29	C	From Leg	4.000	0.000	0.000	144.000	No Ice	1.856	0.695	0.043
			0.000				1/2" Ice	2.027	0.814	0.056
			-1.000				1" Ice	2.204	0.939	0.072
DC9-48-60-24-8C-EV	B	From Leg	4.000	0.000	0.000	144.000	No Ice	2.737	4.785	0.026
			0.000				1/2" Ice	2.963	5.065	0.063
			-1.000				1" Ice	3.196	5.352	0.104

<b>tnxTower</b>  <b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	<b>Job</b>		79982.012.01 - WATERBURY,CT (BU# 876317)		<b>Page</b>		61 of 95	
	<b>Project</b>				<b>Date</b>		16:40:32 05/09/22	
	<b>Client</b>		Crown Castle		<b>Designed by</b>		Jayaraj B	

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C <sub>AA</sub>		Weight	
			Horz Lateral	Vert			Front	Side		
			ft	ft	°	ft	ft <sup>2</sup>	ft <sup>2</sup>	K	
(2) 10' x 2" Mount Pipe	A	From Leg	4.000	0.000	0.000	144.000	No Ice	0.000	2.375	0.037
			0.000				1/2" Ice	0.000	3.403	0.054
			-1.000				1" Ice	0.000	4.448	0.079
(2) 10' x 2" Mount Pipe	B	From Leg	4.000	0.000	0.000	144.000	No Ice	0.000	2.375	0.037
			0.000				1/2" Ice	0.000	3.403	0.054
			-1.000				1" Ice	0.000	4.448	0.079
(2) 10' x 2" Mount Pipe	C	From Leg	4.000	0.000	0.000	144.000	No Ice	0.000	2.375	0.037
			0.000				1/2" Ice	0.000	3.403	0.054
			-1.000				1" Ice	0.000	4.448	0.079
10' x 2" Mount Pipe	A	From Leg	4.000	0.000	0.000	144.000	No Ice	2.375	2.375	0.037
			0.000				1/2" Ice	3.403	3.403	0.054
			-1.000				1" Ice	4.448	4.448	0.079
10' x 2" Mount Pipe	B	From Leg	4.000	0.000	0.000	144.000	No Ice	2.375	2.375	0.037
			0.000				1/2" Ice	3.403	3.403	0.054
			-1.000				1" Ice	4.448	4.448	0.079
10' x 2" Mount Pipe	C	From Leg	4.000	0.000	0.000	144.000	No Ice	2.375	2.375	0.037
			0.000				1/2" Ice	3.403	3.403	0.054
			-1.000				1" Ice	4.448	4.448	0.079
F3P-12W	C	None			0.000	144.000	No Ice	25.520	25.520	1.999
							1/2" Ice	31.740	31.740	2.599
							1" Ice	40.100	40.100	3.414
Miscellaneous [NA 507-1]	C	None			0.000	144.000	No Ice	4.560	4.560	0.245
							1/2" Ice	6.390	6.390	0.311
							1" Ice	8.180	8.180	0.402
* (2) APXVSP18-C-A20 w/ Mount Pipe	A	From Leg	4.000	0.000	0.000	130.000	No Ice	4.600	4.010	0.095
			0.000				1/2" Ice	5.050	4.450	0.160
			0.000				1" Ice	5.500	4.890	0.235
APXVSP18-C-A20 w/ Mount Pipe	B	From Leg	4.000	0.000	0.000	130.000	No Ice	4.600	4.010	0.095
			0.000				1/2" Ice	5.050	4.450	0.160
			0.000				1" Ice	5.500	4.890	0.235
APXVSP18-C-A20 w/ Mount Pipe	C	From Leg	4.000	0.000	0.000	130.000	No Ice	4.600	4.010	0.095
			0.000				1/2" Ice	5.050	4.450	0.160
			0.000				1" Ice	5.500	4.890	0.235
AAHC w/ Mount Pipe	A	From Leg	4.000	0.000	0.000	130.000	No Ice	4.120	2.440	0.115
			0.000				1/2" Ice	4.480	2.750	0.153
			0.000				1" Ice	4.870	3.060	0.197
(2) AAHC w/ Mount Pipe	B	From Leg	4.000	0.000	0.000	130.000	No Ice	4.120	2.440	0.115
			0.000				1/2" Ice	4.480	2.750	0.153
			0.000				1" Ice	4.870	3.060	0.197
(2) IBC1900HB-2	A	From Leg	4.000	0.000	0.000	130.000	No Ice	1.125	0.713	0.040
			0.000				1/2" Ice	1.270	0.837	0.049
			0.000				1" Ice	1.423	0.968	0.060
IBC1900HB-2	B	From Leg	4.000	0.000	0.000	130.000	No Ice	1.125	0.713	0.040
			0.000				1/2" Ice	1.270	0.837	0.049
			0.000				1" Ice	1.423	0.968	0.060
IBC1900HB-2	C	From Leg	4.000	0.000	0.000	130.000	No Ice	1.125	0.713	0.040
			0.000				1/2" Ice	1.270	0.837	0.049
			0.000				1" Ice	1.423	0.968	0.060
800 EXTERNAL NOTCH FILTER	A	From Leg	4.000	0.000	0.000	130.000	No Ice	0.660	0.321	0.011
			0.000				1/2" Ice	0.763	0.398	0.017
			0.000				1" Ice	0.873	0.483	0.024
800 EXTERNAL NOTCH FILTER	B	From Leg	4.000	0.000	0.000	130.000	No Ice	0.660	0.321	0.011
			0.000				1/2" Ice	0.763	0.398	0.017
			0.000				1" Ice	0.873	0.483	0.024
800 EXTERNAL NOTCH FILTER	C	From Leg	4.000	0.000	0.000	130.000	No Ice	0.660	0.321	0.011
			0.000				1/2" Ice	0.763	0.398	0.017

**tnxTower**

**B+T Group**  
 1717 S. Boulder, Suite 300  
 Tulsa, OK 74119  
 Phone: (918) 587-4630  
 FAX: (918) 295-0265

**Job**  
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 Date  
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**Client**  
 Crown Castle  
 Designed by  
 Jayaraj B

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment °	Placement ft	C <sub>AA</sub> Front ft <sup>2</sup>	C <sub>AA</sub> Side ft <sup>2</sup>	Weight K	
			Horz Lateral ft	Vert ft						
(2) 1900MHZ RRH (65MHZ)	A	From Leg	0.000		0.000	130.000	1" Ice	0.873	0.483	0.024
			4.000				No Ice	2.313	2.375	0.060
			0.000				1/2" Ice	2.517	2.581	0.084
(2) 1900MHZ RRH (65MHZ)	B	From Leg	0.000		0.000	130.000	1" Ice	2.728	2.794	0.111
			4.000				No Ice	2.313	2.375	0.060
			0.000				1/2" Ice	2.517	2.581	0.084
(2) 1900MHZ RRH (65MHZ)	C	From Leg	0.000		0.000	130.000	1" Ice	2.728	2.794	0.111
			4.000				No Ice	2.313	2.375	0.060
			0.000				1/2" Ice	2.517	2.581	0.084
800MHZ RRH	A	From Leg	0.000		0.000	130.000	1" Ice	2.728	2.794	0.111
			4.000				No Ice	2.134	1.773	0.053
			0.000				1/2" Ice	2.320	1.946	0.074
800MHZ RRH	B	From Leg	0.000		0.000	130.000	1" Ice	2.512	2.127	0.098
			4.000				No Ice	2.134	1.773	0.053
			0.000				1/2" Ice	2.320	1.946	0.074
800MHZ RRH	C	From Leg	0.000		0.000	130.000	1" Ice	2.512	2.127	0.098
			4.000				No Ice	2.134	1.773	0.053
			0.000				1/2" Ice	2.320	1.946	0.074
(2) PD2DE-700/2700	A	From Leg	0.000		0.000	130.000	1" Ice	2.512	2.127	0.098
			4.000				No Ice	0.114	0.114	0.001
			0.000				1/2" Ice	0.179	0.179	0.002
6' x 2" Mount Pipe	A	From Leg	0.000		0.000	130.000	1" Ice	0.250	0.250	0.004
			4.000				No Ice	1.425	1.425	0.022
			0.000				1/2" Ice	1.925	1.925	0.033
(2) 6' x 2" Mount Pipe	A	From Leg	0.000		0.000	130.000	1" Ice	2.294	2.294	0.048
			4.000				No Ice	0.000	1.425	0.022
			0.000				1/2" Ice	0.000	1.925	0.033
(3) 6' x 2" Mount Pipe	B	From Leg	0.000		0.000	130.000	1" Ice	0.000	2.294	0.048
			4.000				No Ice	1.425	1.425	0.022
			0.000				1/2" Ice	1.925	1.925	0.033
(2) 6' x 2" Mount Pipe	C	From Leg	0.000		0.000	130.000	1" Ice	2.294	2.294	0.048
			4.000				No Ice	1.425	1.425	0.022
			0.000				1/2" Ice	1.925	1.925	0.033
3' x 2" Pipe Mount	A	From Leg	0.000		0.000	130.000	1" Ice	2.294	2.294	0.048
			4.000				No Ice	0.000	0.583	0.011
			0.000				1/2" Ice	0.000	0.770	0.017
3' x 2" Pipe Mount	B	From Leg	-1.000		0.000	130.000	1" Ice	0.000	0.967	0.024
			4.000				No Ice	0.000	0.583	0.011
			0.000				1/2" Ice	0.000	0.770	0.017
3' x 2" Pipe Mount	C	From Leg	-1.000		0.000	130.000	1" Ice	0.000	0.967	0.024
			4.000				No Ice	0.000	0.583	0.011
			0.000				1/2" Ice	0.000	0.770	0.017
(2) 5' x 2" Pipe Mount	A	From Leg	-1.000		0.000	130.000	1" Ice	0.000	0.967	0.024
			4.000				No Ice	1.188	1.188	0.018
			0.000				1/2" Ice	1.496	1.496	0.027
5' x 2" Pipe Mount	B	From Leg	0.000		0.000	130.000	1" Ice	1.807	1.807	0.040
			4.000				No Ice	1.188	1.188	0.018
			0.000				1/2" Ice	1.496	1.496	0.027
5' x 2" Pipe Mount	C	From Leg	0.000		0.000	130.000	1" Ice	1.807	1.807	0.040
			4.000				No Ice	1.188	1.188	0.018
			0.000				1/2" Ice	1.496	1.496	0.027
Pipe Mount [PM 601-3]	C	None	0.000		0.000	130.000	1" Ice	1.807	1.807	0.040
			4.000				No Ice	3.170	3.170	0.195
			0.000				1/2" Ice	3.790	3.790	0.232
Platform Mount [LP 602-1]	C	None	0.000		0.000	130.000	1" Ice	4.420	4.420	0.279
			4.000				No Ice	31.070	31.070	1.343
			0.000				1/2" Ice	34.820	34.820	1.967

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<b>Project</b>		<b>Date</b>	16:40:32 05/09/22
<b>Client</b>	Crown Castle	<b>Designed by</b>	Jayaraj B

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft	C <sub>AA</sub> Front ft <sup>2</sup>	C <sub>AA</sub> Side ft <sup>2</sup>	Weight K	
						1" Ice	38.480	38.480	2.669
* MX08FRO665-21 w/ Mount Pipe	A	From Leg	4.000 0.000 0.000	0.000	120.000	No Ice 1/2" Ice 1" Ice	8.010 8.520 9.040	4.230 4.690 5.160	0.108 0.194 0.292
MX08FRO665-21 w/ Mount Pipe	B	From Leg	4.000 0.000 0.000	0.000	120.000	No Ice 1/2" Ice 1" Ice	8.010 8.520 9.040	4.230 4.690 5.160	0.108 0.194 0.292
MX08FRO665-21 w/ Mount Pipe	C	From Leg	4.000 0.000 0.000	0.000	120.000	No Ice 1/2" Ice 1" Ice	8.010 8.520 9.040	4.230 4.690 5.160	0.108 0.194 0.292
TA08025-B604	A	From Leg	4.000 0.000 0.000	0.000	120.000	No Ice 1/2" Ice 1" Ice	1.964 2.138 2.320	0.981 1.112 1.250	0.064 0.081 0.100
TA08025-B604	B	From Leg	4.000 0.000 0.000	0.000	120.000	No Ice 1/2" Ice 1" Ice	1.964 2.138 2.320	0.981 1.112 1.250	0.064 0.081 0.100
TA08025-B604	C	From Leg	4.000 0.000 0.000	0.000	120.000	No Ice 1/2" Ice 1" Ice	1.964 2.138 2.320	0.981 1.112 1.250	0.064 0.081 0.100
TA08025-B605	A	From Leg	4.000 0.000 0.000	0.000	120.000	No Ice 1/2" Ice 1" Ice	1.964 2.138 2.320	1.129 1.267 1.411	0.075 0.093 0.114
TA08025-B605	B	From Leg	4.000 0.000 0.000	0.000	120.000	No Ice 1/2" Ice 1" Ice	1.964 2.138 2.320	1.129 1.267 1.411	0.075 0.093 0.114
TA08025-B605	C	From Leg	4.000 0.000 0.000	0.000	120.000	No Ice 1/2" Ice 1" Ice	1.964 2.138 2.320	1.129 1.267 1.411	0.075 0.093 0.114
RDIDC-9181-PF-48	A	From Leg	4.000 0.000 0.000	0.000	120.000	No Ice 1/2" Ice 1" Ice	2.012 2.189 2.373	1.168 1.311 1.461	0.022 0.040 0.060
(2) 8' x 2" Mount Pipe	A	From Leg	4.000 0.000 0.000	0.000	120.000	No Ice 1/2" Ice 1" Ice	1.900 2.728 3.401	1.900 2.728 3.401	0.029 0.044 0.063
(2) 8' x 2" Mount Pipe	B	From Leg	4.000 0.000 0.000	0.000	120.000	No Ice 1/2" Ice 1" Ice	1.900 2.728 3.401	1.900 2.728 3.401	0.029 0.044 0.063
(2) 8' x 2" Mount Pipe	C	From Leg	4.000 0.000 0.000	0.000	120.000	No Ice 1/2" Ice 1" Ice	1.900 2.728 3.401	1.900 2.728 3.401	0.029 0.044 0.063
Commscope MC-PK8-DSH	C	None		0.000	120.000	No Ice 1/2" Ice 1" Ice	34.240 62.950 91.660	34.240 62.950 91.660	1.749 2.099 2.450
* SBNHH-1D65B w/ Mount Pipe	A	From Leg	4.000 0.000 0.000	0.000	110.000	No Ice 1/2" Ice 1" Ice	4.090 4.490 4.890	3.300 3.680 4.070	0.066 0.130 0.204
SBNHH-1D65B w/ Mount Pipe	B	From Leg	4.000 0.000 0.000	0.000	110.000	No Ice 1/2" Ice 1" Ice	4.090 4.490 4.890	3.300 3.680 4.070	0.066 0.130 0.204
SBNHH-1D65B w/ Mount Pipe	C	From Leg	4.000 0.000 0.000	0.000	110.000	No Ice 1/2" Ice 1" Ice	4.090 4.490 4.890	3.300 3.680 4.070	0.066 0.130 0.204
SBNHH-1D65B	A	From Leg	4.000 0.000 0.000	0.000	110.000	No Ice 1/2" Ice 1" Ice	4.160 4.570 4.990	2.490 2.880 3.270	0.041 0.091 0.148

<b>tnxTower</b>  <b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	<b>Job</b>		79982.012.01 - WATERBURY,CT (BU# 876317)		<b>Page</b>		64 of 95	
	<b>Project</b>				<b>Date</b>		16:40:32 05/09/22	
	<b>Client</b>		Crown Castle		<b>Designed by</b>		Jayaraj B	

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C <sub>AA</sub> Front	C <sub>AA</sub> Side	Weight	
			Horz	Vert						ft
SBNHH-1D65B	B	From Leg	4.000	0.000	0.000	110.000	No Ice	4.160	2.490	0.041
			0.000	0.000			1/2" Ice	4.570	2.880	0.091
			0.000	0.000			1" Ice	4.990	3.270	0.148
SBNHH-1D65B	C	From Leg	4.000	0.000	0.000	110.000	No Ice	4.160	2.490	0.041
			0.000	0.000			1/2" Ice	4.570	2.880	0.091
			0.000	0.000			1" Ice	4.990	3.270	0.148
BXA-80063/4CF w/ Mount Pipe	A	From Leg	4.000	0.000	0.000	110.000	No Ice	4.830	3.650	0.028
			0.000	0.000			1/2" Ice	5.350	4.140	0.065
			0.000	0.000			1" Ice	5.880	4.640	0.109
BXA-80063/4CF w/ Mount Pipe	B	From Leg	4.000	0.000	0.000	110.000	No Ice	4.830	3.650	0.028
			0.000	0.000			1/2" Ice	5.350	4.140	0.065
			0.000	0.000			1" Ice	5.880	4.640	0.109
BXA-80063/4CF w/ Mount Pipe	C	From Leg	4.000	0.000	0.000	110.000	No Ice	4.830	3.650	0.028
			0.000	0.000			1/2" Ice	5.350	4.140	0.065
			0.000	0.000			1" Ice	5.880	4.640	0.109
BULLET III	C	From Leg	4.000	0.000	0.000	110.000	No Ice	0.066	0.066	0.000
			0.000	0.000			1/2" Ice	0.101	0.101	0.002
			3.000	0.000			1" Ice	0.144	0.144	0.003
RFV01U-D1A	A	From Leg	4.000	0.000	0.000	110.000	No Ice	1.875	1.250	0.084
			0.000	0.000			1/2" Ice	2.045	1.393	0.103
			0.000	0.000			1" Ice	2.223	1.543	0.124
RFV01U-D1A	B	From Leg	4.000	0.000	0.000	110.000	No Ice	1.875	1.250	0.084
			0.000	0.000			1/2" Ice	2.045	1.393	0.103
			0.000	0.000			1" Ice	2.223	1.543	0.124
RFV01U-D1A	C	From Leg	4.000	0.000	0.000	110.000	No Ice	1.875	1.250	0.084
			0.000	0.000			1/2" Ice	2.045	1.393	0.103
			0.000	0.000			1" Ice	2.223	1.543	0.124
RFV01U-D2A	A	From Leg	4.000	0.000	0.000	110.000	No Ice	1.875	1.013	0.070
			0.000	0.000			1/2" Ice	2.045	1.145	0.087
			0.000	0.000			1" Ice	2.223	1.284	0.106
RFV01U-D2A	B	From Leg	4.000	0.000	0.000	110.000	No Ice	1.875	1.013	0.070
			0.000	0.000			1/2" Ice	2.045	1.145	0.087
			0.000	0.000			1" Ice	2.223	1.284	0.106
RFV01U-D2A	C	From Leg	4.000	0.000	0.000	110.000	No Ice	1.875	1.013	0.070
			0.000	0.000			1/2" Ice	2.045	1.145	0.087
			0.000	0.000			1" Ice	2.223	1.284	0.106
RVZDC-6627-PF-48	C	From Leg	4.000	0.000	0.000	110.000	No Ice	3.792	2.514	0.032
			0.000	0.000			1/2" Ice	4.044	2.727	0.063
			0.000	0.000			1" Ice	4.303	2.947	0.099
MT6407-77A w/ Mount Pipe	A	From Leg	4.000	0.000	0.000	110.000	No Ice	4.907	2.682	0.096
			0.000	0.000			1/2" Ice	5.256	3.145	0.136
			0.000	0.000			1" Ice	5.615	3.624	0.180
MT6407-77A w/ Mount Pipe	B	From Leg	4.000	0.000	0.000	110.000	No Ice	4.907	2.682	0.096
			0.000	0.000			1/2" Ice	5.256	3.145	0.136
			0.000	0.000			1" Ice	5.615	3.624	0.180
MT6407-77A w/ Mount Pipe	C	From Leg	4.000	0.000	0.000	110.000	No Ice	4.907	2.682	0.096
			0.000	0.000			1/2" Ice	5.256	3.145	0.136
			0.000	0.000			1" Ice	5.615	3.624	0.180
(3) 3' x 2" Pipe Mount	A	From Leg	4.000	0.000	0.000	110.000	No Ice	0.583	0.583	0.011
			0.000	0.000			1/2" Ice	0.770	0.770	0.017
			0.000	0.000			1" Ice	0.967	0.967	0.024
(3) 3' x 2" Pipe Mount	B	From Leg	4.000	0.000	0.000	110.000	No Ice	0.583	0.583	0.011
			0.000	0.000			1/2" Ice	0.770	0.770	0.017
			0.000	0.000			1" Ice	0.967	0.967	0.024
(2) 3' x 2" Pipe Mount	C	From Leg	4.000	0.000	0.000	110.000	No Ice	0.583	0.583	0.011
			0.000	0.000			1/2" Ice	0.770	0.770	0.017
			0.000	0.000			1" Ice	0.967	0.967	0.024



Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C <sub>AA</sub> Front	C <sub>AA</sub> Side	Weight	
			Horz Lateral	Vert						ft
6' x 2" Mount Pipe	A	From Leg	4.000	0.000	0.000	110.000	No Ice	1.425	1.425	0.022
			0.000				1/2" Ice	1.925	1.925	0.033
			0.000				1" Ice	2.294	2.294	0.048
6' x 2" Mount Pipe	B	From Leg	4.000	0.000	0.000	110.000	No Ice	1.425	1.425	0.022
			0.000				1/2" Ice	1.925	1.925	0.033
			0.000				1" Ice	2.294	2.294	0.048
(2) 6' x 2" Mount Pipe	C	From Leg	4.000	0.000	0.000	110.000	No Ice	1.425	1.425	0.022
			0.000				1/2" Ice	1.925	1.925	0.033
			0.000				1" Ice	2.294	2.294	0.048
Side Arm Mount [SO 102-3]	C	None			0.000	110.000	No Ice	0.000	0.000	0.075
							1/2" Ice	0.000	0.000	0.105
							1" Ice	0.000	0.000	0.135
Mount Reinforcement Specifications	C	None			0.000	110.000	No Ice	28.630	28.630	0.280
							1/2" Ice	37.310	37.310	0.670
							1" Ice	45.800	45.800	0.940
Platform Mount [LP 713-1]	C	None			0.000	110.000	No Ice	32.890	32.890	1.510
							1/2" Ice	35.760	35.760	2.228
							1" Ice	38.760	38.760	3.026
*										
AIR -32 B2A/B66AA w/ Mount Pipe	A	From Leg	4.000	0.000	0.000	100.000	No Ice	3.760	3.150	0.194
			0.000				1/2" Ice	4.120	3.490	0.252
			1.000				1" Ice	4.480	3.840	0.320
AIR -32 B2A/B66AA w/ Mount Pipe	B	From Leg	4.000	0.000	0.000	100.000	No Ice	3.760	3.150	0.194
			0.000				1/2" Ice	4.120	3.490	0.252
			1.000				1" Ice	4.480	3.840	0.320
AIR -32 B2A/B66AA w/ Mount Pipe	C	From Leg	4.000	0.000	0.000	100.000	No Ice	3.760	3.150	0.194
			0.000				1/2" Ice	4.120	3.490	0.252
			1.000				1" Ice	4.480	3.840	0.320
APXVAARR24_43-U-NA20 w/ Mount Pipe	A	From Leg	4.000	0.000	0.000	100.000	No Ice	14.690	6.870	0.186
			0.000				1/2" Ice	15.460	7.550	0.315
			1.000				1" Ice	16.230	8.250	0.458
APXVAARR24_43-U-NA20 w/ Mount Pipe	B	From Leg	4.000	0.000	0.000	100.000	No Ice	14.690	6.870	0.186
			0.000				1/2" Ice	15.460	7.550	0.315
			1.000				1" Ice	16.230	8.250	0.458
APXVAARR24_43-U-NA20 w/ Mount Pipe	C	From Leg	4.000	0.000	0.000	100.000	No Ice	14.690	6.870	0.186
			0.000				1/2" Ice	15.460	7.550	0.315
			1.000				1" Ice	16.230	8.250	0.458
AIR 6419 B41_TMO w/ Mount Pipe	A	From Leg	4.000	0.000	0.000	100.000	No Ice	6.580	3.500	0.111
			0.000				1/2" Ice	7.060	3.900	0.162
			1.000				1" Ice	7.570	4.320	0.220
AIR 6419 B41_TMO w/ Mount Pipe	B	From Leg	4.000	0.000	0.000	100.000	No Ice	6.580	3.500	0.111
			0.000				1/2" Ice	7.060	3.900	0.162
			1.000				1" Ice	7.570	4.320	0.220
AIR 6419 B41_TMO w/ Mount Pipe	C	From Leg	4.000	0.000	0.000	100.000	No Ice	6.580	3.500	0.111
			0.000				1/2" Ice	7.060	3.900	0.162
			1.000				1" Ice	7.570	4.320	0.220
RADIO 4449 B71 B85A_T-MOBILE	A	From Leg	4.000	0.000	0.000	100.000	No Ice	1.970	1.587	0.073
			0.000				1/2" Ice	2.147	1.749	0.093
			1.000				1" Ice	2.331	1.918	0.116
RADIO 4449 B71 B85A_T-MOBILE	B	From Leg	4.000	0.000	0.000	100.000	No Ice	1.970	1.587	0.073
			0.000				1/2" Ice	2.147	1.749	0.093
			1.000				1" Ice	2.331	1.918	0.116
RADIO 4449 B71 B85A_T-MOBILE	C	From Leg	4.000	0.000	0.000	100.000	No Ice	1.970	1.587	0.073
			0.000				1/2" Ice	2.147	1.749	0.093
			1.000				1" Ice	2.331	1.918	0.116
RADIO 4460 B2/B25 B66_TMO	A	From Leg	4.000	0.000	0.000	100.000	No Ice	2.139	1.686	0.109
			0.000				1/2" Ice	2.321	1.850	0.131



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	<b>Project</b>	<b>Date</b> 16:40:32 05/09/22
	<b>Client</b> Crown Castle	<b>Designed by</b> Jayaraj B

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft	C <sub>A</sub> A <sub>Front</sub> ft <sup>2</sup>	C <sub>A</sub> A <sub>Side</sub> ft <sup>2</sup>	Weight K	
RADIO 4460 B2/B25 B66_TMO	B	From Leg	1.000	0.000	100.000	1" Ice	2.511	2.022	0.156
			4.000			No Ice	2.139	1.686	0.109
			0.000			1/2" Ice	2.321	1.850	0.131
RADIO 4460 B2/B25 B66_TMO	C	From Leg	1.000	0.000	100.000	1" Ice	2.511	2.022	0.156
			4.000			No Ice	2.139	1.686	0.109
			0.000			1/2" Ice	2.321	1.850	0.131
Platform Mount [LP 303-1_HR-1]	C	None	1.000	0.000	100.000	1" Ice	2.511	2.022	0.156
						No Ice	17.090	17.090	1.495
						1/2" Ice	21.470	21.470	1.881
* KS24019-L112A	C	From Leg	1.000	0.000	50.000	1" Ice	2.511	2.022	0.156
			4.000			No Ice	0.141	0.141	0.005
			0.000			1/2" Ice	0.198	0.198	0.007
Side Arm Mount [SO 701-1]	C	From Leg	1.000	0.000	50.000	1" Ice	0.262	0.262	0.009
			2.000			No Ice	0.850	1.670	0.065
			0.000			1/2" Ice	1.140	2.340	0.079
			0.000			1" Ice	1.430	3.010	0.093

### Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft	Aperture Area ft <sup>2</sup>	Weight K	
VHLP2-23	A	Paraboloid w/Shroud (HP)	From Leg	4.000	0.000		130.000	2.175	No Ice	3.715	0.031
				0.000					1/2" Ice	4.006	0.052
				3.000					1" Ice	4.296	0.072
VHLP2-23	B	Paraboloid w/Shroud (HP)	From Leg	4.000	-50.000		130.000	2.175	No Ice	3.715	0.031
				0.000					1/2" Ice	4.006	0.052
				3.000					1" Ice	4.296	0.072
VHLP2-18	C	Paraboloid w/Shroud (HP)	From Leg	4.000	-60.000		130.000	2.175	No Ice	3.715	0.031
				0.000					1/2" Ice	4.006	0.052
				3.000					1" Ice	4.296	0.072
*											
*											
*											

### Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.0 Wind 0 deg - No Ice
3	0.9 Dead+1.0 Wind 0 deg - No Ice
4	1.2 Dead+1.0 Wind 30 deg - No Ice
5	0.9 Dead+1.0 Wind 30 deg - No Ice

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Comb. No.	Description
6	1.2 Dead+1.0 Wind 60 deg - No Ice
7	0.9 Dead+1.0 Wind 60 deg - No Ice
8	1.2 Dead+1.0 Wind 90 deg - No Ice
9	0.9 Dead+1.0 Wind 90 deg - No Ice
10	1.2 Dead+1.0 Wind 120 deg - No Ice
11	0.9 Dead+1.0 Wind 120 deg - No Ice
12	1.2 Dead+1.0 Wind 150 deg - No Ice
13	0.9 Dead+1.0 Wind 150 deg - No Ice
14	1.2 Dead+1.0 Wind 180 deg - No Ice
15	0.9 Dead+1.0 Wind 180 deg - No Ice
16	1.2 Dead+1.0 Wind 210 deg - No Ice
17	0.9 Dead+1.0 Wind 210 deg - No Ice
18	1.2 Dead+1.0 Wind 240 deg - No Ice
19	0.9 Dead+1.0 Wind 240 deg - No Ice
20	1.2 Dead+1.0 Wind 270 deg - No Ice
21	0.9 Dead+1.0 Wind 270 deg - No Ice
22	1.2 Dead+1.0 Wind 300 deg - No Ice
23	0.9 Dead+1.0 Wind 300 deg - No Ice
24	1.2 Dead+1.0 Wind 330 deg - No Ice
25	0.9 Dead+1.0 Wind 330 deg - No Ice
26	1.2 Dead+1.0 Ice+1.0 Temp
27	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp
28	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp
29	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp
30	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp
31	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp
32	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp
33	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
34	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp
35	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp
36	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp
37	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp
38	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp
39	Dead+Wind 0 deg - Service
40	Dead+Wind 30 deg - Service
41	Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

### Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L1	144.25 - 139.25	Pole	Max Tension	21	0.000	-0.000	0.000
			Max. Compression	26	-10.802	-0.291	-0.053
			Max. Mx	8	-5.162	-26.842	0.173
			Max. My	14	-5.140	0.150	-27.040
			Max. Vy	8	6.571	-26.842	0.173
			Max. Vx	2	-6.642	-0.108	27.038
			Max. Torque	17			0.613

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L2	139.25 - 134.75	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-11.224	-0.380	0.007
			Max. Mx	8	-5.456	-56.730	0.336
			Max. My	2	-5.424	-0.293	57.297
			Max. Vy	8	6.709	-56.730	0.336
			Max. Vx	2	-6.804	-0.293	57.297
			Max. Torque	17			0.613
L3	134.75 - 134.25	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-11.273	-0.390	0.014
			Max. Mx	8	-5.493	-60.089	0.355
			Max. My	2	-5.461	-0.315	60.703
			Max. Vy	8	6.722	-60.089	0.355
			Max. Vx	2	-6.820	-0.315	60.703
			Max. Torque	17			0.613
L4	134.25 - 129.25	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-18.809	-2.440	1.904
			Max. Mx	8	-9.153	-99.412	1.424
			Max. My	2	-9.099	-1.780	100.654
			Max. Vy	20	-11.106	96.967	0.355
			Max. Vx	2	-11.262	-1.780	100.654
			Max. Torque	15			1.214
L5	129.25 - 124.25	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-19.255	-2.580	2.001
			Max. Mx	8	-9.500	-155.106	1.537
			Max. My	2	-9.446	-2.008	157.350
			Max. Vy	20	-11.250	152.788	0.247
			Max. Vx	2	-11.432	-2.008	157.350
			Max. Torque	15			1.214
L6	124.25 - 123.416	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-19.342	-2.602	2.015
			Max. Mx	8	-9.564	-164.463	1.555
			Max. My	2	-9.511	-2.045	166.886
			Max. Vy	20	-11.275	162.168	0.229
			Max. Vx	2	-11.456	-2.045	166.886
			Max. Torque	15			1.212
L7	123.416 - 123.166	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-19.382	-2.609	2.020
			Max. Mx	8	-9.603	-167.273	1.561
			Max. My	2	-9.550	-2.057	169.749
			Max. Vy	20	-11.279	164.985	0.224
			Max. Vx	2	-11.460	-2.057	169.749
			Max. Torque	15			1.212
L8	123.166 - 118.166	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-25.075	-2.747	2.408
			Max. Mx	8	-13.045	-229.294	1.774
			Max. My	2	-12.985	-2.283	233.004
			Max. Vy	20	-14.338	227.132	0.218
			Max. Vx	2	-14.545	-2.283	233.004
			Max. Torque	15			1.212
L9	118.166 - 113.166	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-25.920	-2.903	2.511
			Max. Mx	8	-13.660	-301.413	1.891
			Max. My	2	-13.603	-2.520	306.304

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L10	113.166 - 109.5	Pole	Max. Vy	20	-14.585	299.364	0.111
			Max. Vx	2	-14.787	-2.520	306.304
			Max. Torque	15			1.211
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-34.251	-2.473	2.280
			Max. Mx	8	-17.501	-357.117	1.887
			Max. My	2	-17.441	-2.532	362.926
			Max. Vy	20	-19.268	355.576	-0.073
			Max. Vx	2	-19.446	-2.532	362.926
			Max. Torque	15			1.210
L11	109.5 - 109.25	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-34.305	-2.482	2.287
			Max. Mx	8	-17.558	-361.925	1.897
			Max. My	2	-17.499	-2.549	367.786
			Max. Vy	20	-19.269	360.389	-0.082
			Max. Vx	2	-19.445	-2.549	367.786
			Max. Torque	15			0.824
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-35.320	-2.614	2.399
			Max. Mx	8	-18.304	-449.048	2.075
L12	109.25 - 104.75	Pole	Max. My	2	-18.249	-2.837	455.793
			Max. Vy	20	-19.529	447.612	-0.250
			Max. Vx	2	-19.680	-2.837	455.793
			Max. Torque	15			0.824
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-35.393	-2.622	2.405
			Max. Mx	8	-18.370	-453.922	2.085
			Max. My	2	-18.317	-2.853	460.712
			Max. Vy	20	-19.539	452.492	-0.259
			Max. Vx	2	-19.686	-2.853	460.712
L13	104.75 - 104.5	Pole	Max. Torque	15			0.823
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-36.001	-2.682	2.446
			Max. Mx	8	-18.803	-494.764	2.167
			Max. My	2	-18.754	-2.986	501.891
			Max. Vy	20	-19.730	493.380	-0.337
			Max. Vx	2	-19.839	-2.986	501.891
			Max. Torque	15			0.823
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-36.070	-2.690	2.452
L14	104.5 - 102.416	Pole	Max. Mx	8	-18.862	-499.689	2.177
			Max. My	2	-18.814	-3.002	506.850
			Max. Vy	20	-19.743	498.311	-0.346
			Max. Vx	2	-19.847	-3.002	506.850
			Max. Torque	15			0.823
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-36.070	-2.690	2.452
			Max. Mx	8	-18.862	-499.689	2.177
			Max. My	2	-18.814	-3.002	506.850
			Max. Vy	20	-19.743	498.311	-0.346
L15	102.416 - 102.166	Pole	Max. Vx	2	-19.847	-3.002	506.850
			Max. Torque	15			0.823
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-36.070	-2.690	2.452
			Max. Mx	8	-18.862	-499.689	2.177
			Max. My	2	-18.814	-3.002	506.850
			Max. Vy	20	-19.743	498.311	-0.346
			Max. Vx	2	-19.847	-3.002	506.850
			Max. Torque	15			0.823
			Max Tension	1	0.000	0.000	0.000
L16	102.166 - 98.75	Pole	Max. Compression	26	-43.734	-2.794	2.499
			Max. Mx	8	-23.502	-572.854	2.311
			Max. My	2	-23.450	-3.222	580.487
			Max. Vy	20	-22.845	571.549	-0.475
			Max. Vx	2	-22.955	-3.222	580.487
			Max. Torque	15			0.823
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-43.820	-2.804	2.502
			Max. Mx	8	-23.585	-578.554	2.322
			Max. My	2	-23.533	-3.239	586.224
L17	98.75 - 98.5	Pole	Max. Vy	20	-19.269	360.389	-0.082
			Max. Vx	2	-19.445	-2.549	367.786
			Max. Torque	15			0.824
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-35.320	-2.614	2.399
			Max. Mx	8	-18.304	-449.048	2.075
			Max. My	2	-18.249	-2.837	455.793
			Max. Vy	20	-19.529	447.612	-0.250
			Max. Vx	2	-19.680	-2.837	455.793
			Max. Torque	15			0.824

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L18	98.5 - 97.5	Pole	Max. Vy	20	-22.845	577.256	-0.485
			Max. Vx	2	-22.961	-3.239	586.224
			Max. Torque	15			0.823
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-44.166	-2.836	2.510
			Max. Mx	8	-23.839	-601.398	2.360
			Max. My	2	-23.785	-3.303	609.227
			Max. Vy	20	-22.918	600.121	-0.524
L19	97.5 - 97.25	Pole	Max. Vx	2	-23.058	-3.303	609.227
			Max. Torque	15			0.824
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-44.250	-2.845	2.512
			Max. Mx	8	-23.912	-607.119	2.370
			Max. My	2	-23.857	-3.320	614.992
			Max. Vy	20	-22.926	605.847	-0.534
			Max. Vx	2	-23.072	-3.320	614.992
L20	97.25 - 92	Pole	Max. Torque	15			0.824
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-44.811	-2.908	2.527
			Max. Mx	8	-24.324	-646.075	2.436
			Max. My	2	-24.266	-3.430	654.284
			Max. Vy	20	-23.047	644.839	-0.599
			Max. Vx	2	-23.234	-3.430	654.284
			Max. Torque	15			0.828
L21	92 - 90.552	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-47.380	-3.101	2.572
			Max. Mx	8	-26.374	-762.196	2.632
			Max. My	2	-26.305	-3.757	771.817
			Max. Vy	20	-23.469	761.066	-0.794
			Max. Vx	2	-23.784	-3.757	771.817
			Max. Torque	15			0.838
			Max Tension	1	0.000	0.000	0.000
L22	90.552 - 89.25	Pole	Max. Compression	26	-47.840	-3.146	2.582
			Max. Mx	8	-26.737	-792.733	2.682
			Max. My	2	-26.668	-3.842	802.809
			Max. Vy	20	-23.542	791.630	-0.845
			Max. Vx	2	-23.865	-3.842	802.809
			Max. Torque	15			0.838
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-47.940	-3.156	2.585
L23	89.25 - 89	Pole	Max. Mx	8	-26.832	-798.609	2.693
			Max. My	2	-26.763	-3.859	808.773
			Max. Vy	20	-23.541	797.510	-0.854
			Max. Vx	2	-23.866	-3.859	808.773
			Max. Torque	15			0.838
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-48.241	-3.180	2.590
			Max. Mx	8	-27.061	-816.259	2.722
L24	89 - 88.25	Pole	Max. My	2	-26.992	-3.908	826.692
			Max. Vy	20	-23.596	815.175	-0.884
			Max. Vx	2	-23.928	-3.908	826.692
			Max. Torque	15			0.838
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-48.329	-3.189	2.592
			Max. Mx	8	-27.135	-822.151	2.732
			Max. My	2	-27.066	-3.924	832.674
L25	88.25 - 88	Pole	Max. Vy	20	-23.605	821.072	-0.893
			Max. Vx	2	-23.938	-3.924	832.674
			Max. Torque	15			0.838
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-48.388	-3.196	2.594
			Max. Mx	8	-27.135	-822.151	2.732
			Max. My	2	-27.066	-3.924	832.674
			Max. Vy	20	-23.605	821.072	-0.893
L26	88 - 87.833	Pole	Max. Vx	2	-23.938	-3.924	832.674
			Max. Torque	15			0.838
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-48.388	-3.196	2.594

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft			
L27	87.833 - 87.583	Pole	Max. Mx	8	-27.181	-826.088	2.738			
			Max. My	2	-27.113	-3.936	836.672			
			Max. Vy	20	-23.615	825.012	-0.900			
			Max. Vx	2	-23.949	-3.936	836.672			
			Max. Torque	15			0.838			
			Max Tension	1	0.000	0.000	0.000			
			Max. Compression	26	-48.470	-3.203	2.595			
			Max. Mx	8	-27.242	-831.985	2.748			
			Max. My	2	-27.173	-3.952	842.660			
			Max. Vy	20	-23.627	830.914	-0.910			
L28	87.583 - 82.583	Pole	Max. Vx	2	-23.963	-3.952	842.660			
			Max. Torque	15			0.838			
			Max Tension	1	0.000	0.000	0.000			
			Max. Compression	26	-50.030	-3.369	2.645			
			Max. Mx	8	-28.490	-950.446	2.941			
			Max. My	2	-28.421	-4.277	963.049			
			Max. Vy	20	-23.839	949.469	-1.104			
			Max. Vx	2	-24.215	-4.277	963.049			
			Max. Torque	15			0.838			
			Max Tension	1	0.000	0.000	0.000			
L29	82.583 - 77.583	Pole	Max. Compression	26	-51.599	-3.536	2.704			
			Max. Mx	8	-29.777	-1069.826	3.133			
			Max. My	2	-29.711	-4.600	1084.571			
			Max. Vy	20	-24.011	1068.940	-1.297			
			Max. Vx	2	-24.433	-4.600	1084.571			
			Max. Torque	15			0.837			
			Max Tension	1	0.000	0.000	0.000			
			Max. Compression	26	-51.790	-3.555	2.711			
			Max. Mx	8	-29.938	-1083.801	3.156			
			Max. My	2	-29.871	-4.638	1098.812			
L30	77.583 - 77	Pole	Max. Vy	20	-24.021	1082.926	-1.319			
			Max. Vx	2	-24.452	-4.638	1098.812			
			Max. Torque	15			0.836			
			Max Tension	1	0.000	0.000	0.000			
			Max. Compression	26	-51.885	-3.565	2.715			
			Max. Mx	8	-30.021	-1089.798	3.165			
			Max. My	2	-29.954	-4.655	1104.924			
			Max. Vy	20	-24.025	1088.927	-1.329			
			Max. Vx	2	-24.459	-4.655	1104.924			
			Max. Torque	15			0.836			
L31	77 - 76.75	Pole	Max Tension	1	0.000	0.000	0.000			
			Max. Compression	26	-52.043	-3.578	2.719			
			Max. Mx	8	-30.145	-1099.807	3.181			
			Max. My	2	-30.078	-4.681	1115.128			
			Max. Vy	20	-24.047	1098.943	-1.345			
			Max. Vx	2	-24.487	-4.681	1115.128			
			Max. Torque	15			0.836			
			Max Tension	1	0.000	0.000	0.000			
			Max. Compression	26	-52.135	-3.587	2.723			
			Max. Mx	8	-30.220	-1105.811	3.191			
L32	76.75 - 76.333	Pole	Max. My	2	-30.153	-4.698	1121.251			
			Max. Vy	20	-24.056	1104.952	-1.354			
			Max. Vx	2	-24.500	-4.698	1121.251			
			Max. Torque	15			0.836			
			Max Tension	1	0.000	0.000	0.000			
			Max. Compression	26	-52.807	-3.653	2.755			
			Max. Mx	8	-30.730	-1149.923	3.260			
			L33	76.333 - 76.083	Pole	Max. My	2	-30.153	-4.698	1121.251
						Max. Vy	20	-24.056	1104.952	-1.354
						Max. Vx	2	-24.500	-4.698	1121.251
Max. Torque	15						0.836			
Max Tension	1	0.000				0.000	0.000			
Max. Compression	26	-52.807				-3.653	2.755			
Max. Mx	8	-30.730				-1149.923	3.260			
L34	76.083 - 74.25	Pole				Max. My	2	-30.153	-4.698	1121.251
						Max. Vy	20	-24.056	1104.952	-1.354
						Max. Vx	2	-24.500	-4.698	1121.251
			Max. Torque	15			0.836			
			Max Tension	1	0.000	0.000	0.000			
			Max. Compression	26	-52.807	-3.653	2.755			
			Max. Mx	8	-30.730	-1149.923	3.260			

<b>tnxTower</b>  <b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	<b>Job</b>	79982.012.01 - WATERBURY,CT (BU# 876317)	<b>Page</b>	72 of 95
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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L35	74.25 - 74	Pole	Max. My	2	-30.663	-4.815	1166.255
			Max. Vy	20	-24.168	1149.097	-1.425
			Max. Vx	2	-24.638	-4.815	1166.255
			Max. Torque	15			0.836
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-52.902	-3.664	2.762
			Max. Mx	8	-30.829	-1155.952	3.270
			Max. My	2	-30.762	-4.832	1172.409
			Max. Vy	20	-24.152	1155.130	-1.434
			Max. Vx	2	-24.626	-4.832	1172.409
L36	74 - 73.75	Pole	Max. Torque	15			0.836
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-52.998	-3.674	2.768
			Max. Mx	8	-30.905	-1161.983	3.279
			Max. My	2	-30.838	-4.848	1178.567
			Max. Vy	20	-24.164	1161.166	-1.444
			Max. Vx	2	-24.641	-4.848	1178.567
			Max. Torque	15			0.836
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-53.096	-3.684	2.774
L37	73.75 - 73.5	Pole	Max. Mx	8	-30.984	-1168.018	3.289
			Max. My	2	-30.917	-4.864	1184.729
			Max. Vy	20	-24.176	1167.205	-1.453
			Max. Vx	2	-24.657	-4.864	1184.729
			Max. Torque	15			0.836
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-55.060	-3.883	2.891
			Max. Mx	8	-32.545	-1289.340	3.478
			Max. My	2	-32.478	-5.185	1308.771
			Max. Vy	20	-24.430	1288.614	-1.644
L38	73.5 - 68.5	Pole	Max. Vx	2	-24.978	-5.185	1308.771
			Max. Torque	15			0.835
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-57.042	-4.085	3.010
			Max. Mx	8	-34.137	-1411.841	3.667
			Max. My	2	-34.071	-5.505	1434.316
			Max. Vy	20	-24.661	1411.199	-1.834
			Max. Vx	2	-25.271	-5.505	1434.316
			Max. Torque	15			0.835
			Max Tension	1	0.000	0.000	0.000
L39	68.5 - 63.5	Pole	Max. Compression	26	-58.269	-4.207	3.081
			Max. Mx	8	-35.106	-1485.887	3.780
			Max. My	2	-35.041	-5.697	1510.333
			Max. Vy	20	-24.794	1485.294	-1.948
			Max. Vx	2	-25.439	-5.697	1510.333
			Max. Torque	15			0.834
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-58.373	-4.218	3.088
			Max. Mx	8	-35.198	-1492.075	3.789
			Max. My	2	-35.134	-5.713	1516.690
L40	63.5 - 60.5	Pole	Max. Vy	20	-24.792	1491.487	-1.957
			Max. Vx	2	-25.439	-5.713	1516.690
			Max. Torque	15			0.834
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-58.686	-4.248	3.105
			Max. Mx	8	-35.435	-1510.657	3.817
			Max. My	2	-35.371	-5.761	1535.783
			Max. Vy	20	-24.833	1510.081	-1.985
			Max. Vx	2	-25.489	-5.761	1535.783
			Max. Torque	15			0.834
L41	60.5 - 60.25	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-58.373	-4.218	3.088
L42	60.25 - 59.5	Pole	Max. Mx	8	-35.198	-1492.075	3.789
			Max. My	2	-35.134	-5.713	1516.690
			Max. Vy	20	-24.792	1491.487	-1.957
			Max. Vx	2	-25.439	-5.713	1516.690
			Max. Torque	15			0.834
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-58.686	-4.248	3.105
			Max. Mx	8	-35.435	-1510.657	3.817
			Max. My	2	-35.371	-5.761	1535.783
			Max. Vy	20	-24.833	1510.081	-1.985
L43	59.5 - 59.25	Pole	Max. Vx	2	-25.489	-5.761	1535.783
			Max. Torque	15			0.834
			Max Tension	1	0.000	0.000	0.000

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			<b>Designed by</b>
			Jayaraj B

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L44	59.25 - 54.25	Pole	Max. Compression	26	-58.796	-4.259	3.112
			Max. Mx	8	-35.528	-1516.857	3.827
			Max. My	2	-35.464	-5.777	1542.154
			Max. Vy	20	-24.836	1516.284	-1.995
			Max. Vx	2	-25.495	-5.777	1542.154
			Max. Torque	15			0.834
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-60.914	-4.461	3.229
			Max. Mx	8	-37.225	-1641.433	4.013
			Max. My	2	-37.165	-6.095	1670.223
L45	54.25 - 45.802	Pole	Max. Vy	20	-25.072	1640.939	-2.182
			Max. Vx	2	-25.752	-6.095	1670.223
			Max. Torque	15			0.834
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-62.724	-4.637	3.330
			Max. Mx	8	-38.693	-1748.174	4.171
			Max. My	2	-38.637	-6.366	1779.999
			Max. Vy	20	-25.251	1747.745	-2.341
			Max. Vx	2	-25.941	-6.366	1779.999
			Max. Torque	15			0.834
L46	45.802 - 44.802	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-66.493	-4.516	3.255
L47	44.802 - 43.583	Pole	Max. Mx	20	-41.815	1880.272	-2.620
			Max. My	2	-41.763	-6.405	1915.899
			Max. Vy	20	-25.639	1880.272	-2.620
			Max. Vx	2	-26.357	-6.405	1915.899
			Max. Torque	15			0.676
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-67.029	-4.560	3.269
			Max. Mx	20	-42.249	1911.515	-2.653
			Max. My	2	-42.198	-6.471	1948.039
			Max. Vy	20	-25.690	1911.515	-2.653
L48	43.583 - 43.333	Pole	Max. Vx	2	-26.416	-6.471	1948.039
			Max. Torque	15			0.676
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-67.144	-4.570	3.273
			Max. Mx	20	-42.356	1917.929	-2.660
			Max. My	2	-42.307	-6.484	1954.639
			Max. Vy	20	-25.680	1917.929	-2.660
			Max. Vx	2	-26.407	-6.484	1954.639
			Max. Torque	15			0.676
			Max Tension	1	0.000	0.000	0.000
L49	43.333 - 43.166	Pole	Max. Compression	26	-67.221	-4.577	3.275
			Max. Mx	20	-42.420	1922.215	-2.664
			Max. My	2	-42.371	-6.493	1959.050
			Max. Vy	20	-25.687	1922.215	-2.664
			Max. Vx	2	-26.415	-6.493	1959.050
			Max. Torque	15			0.676
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-67.340	-4.584	3.276
			Max. Mx	20	-42.518	1928.634	-2.671
			Max. My	2	-42.469	-6.506	1965.654
L50	43.166 - 42.916	Pole	Max. Vy	20	-25.696	1928.634	-2.671
			Max. Vx	2	-26.427	-6.506	1965.654
			Max. Torque	15			0.676
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-67.340	-4.584	3.276
			Max. Mx	20	-42.518	1928.634	-2.671
			Max. My	2	-42.469	-6.506	1965.654
			Max. Vy	20	-25.696	1928.634	-2.671
			Max. Vx	2	-26.427	-6.506	1965.654
			Max. Torque	15			0.676
L51	42.916 - 39	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-67.340	-4.584	3.276



Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L52	39 - 38.75	Pole	Max. Compression	26	-69.215	-4.706	3.293
			Max. Mx	20	-44.047	2029.500	-2.776
			Max. My	2	-44.000	-6.716	2069.490
			Max. Vy	20	-25.874	2029.500	-2.776
			Max. Vx	2	-26.631	-6.716	2069.490
			Max. Torque	15			0.676
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-69.340	-4.716	3.295
			Max. Mx	20	-44.163	2035.960	-2.783
			Max. My	2	-44.117	-6.729	2076.144
L53	38.75 - 37.166	Pole	Max. Vy	20	-25.864	2035.960	-2.783
			Max. Vx	2	-26.622	-6.729	2076.144
			Max. Torque	15			0.676
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-70.134	-4.768	3.296
			Max. Mx	20	-44.802	2076.951	-2.825
			Max. My	2	-44.756	-6.814	2118.368
			Max. Vy	20	-25.953	2076.951	-2.825
			Max. Vx	2	-26.722	-6.814	2118.368
			Max. Torque	15			0.676
L54	37.166 - 36.916	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-70.257	-4.777	3.297
			Max. Mx	20	-44.918	2083.430	-2.832
			Max. My	2	-44.874	-6.827	2125.043
			Max. Vy	20	-25.938	2083.430	-2.832
			Max. Vx	2	-26.708	-6.827	2125.043
			Max. Torque	15			0.676
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-71.698	-4.870	3.316
			Max. Mx	20	-46.079	2159.163	-2.909
L55	36.916 - 34	Pole	Max. My	2	-46.037	-6.982	2203.095
			Max. Vy	20	-26.066	2159.163	-2.909
			Max. Vx	2	-26.856	-6.982	2203.095
			Max. Torque	15			0.676
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-71.819	-4.880	3.320
			Max. Mx	20	-46.192	2165.670	-2.916
			Max. My	2	-46.150	-6.996	2209.803
			Max. Vy	20	-26.050	2165.670	-2.916
			Max. Vx	2	-26.841	-6.996	2209.803
L56	34 - 33.75	Pole	Max. Torque	15			0.675
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-73.714	-5.005	3.362
			Max. Mx	20	-47.742	2270.050	-3.021
			Max. My	2	-47.705	-7.208	2317.455
			Max. Vy	20	-26.193	2270.050	-3.021
			Max. Vx	2	-27.007	-7.208	2317.455
			Max. Torque	15			0.675
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-73.834	-5.014	3.366
L57	33.75 - 29.75	Pole	Max. Mx	20	-47.814	-7.221	2324.204
			Max. Vy	20	-26.185	2276.591	-3.027
			Max. Vx	2	-27.000	-7.221	2324.204
			Max. Torque	15			0.675
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-76.215	-5.180	3.420
			Max. Mx	20	-49.827	2407.802	-3.157
			Max. My	2	-49.795	-7.485	2459.624
			Max. Vy	20	-26.352	2407.802	-3.157
			Max. Vx	2			
L58	29.75 - 29.5	Pole	Max. Torque	15			0.675
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-76.215	-5.180	3.420
			Max. Mx	20	-49.827	2407.802	-3.157
			Max. My	2	-49.795	-7.485	2459.624
L59	29.5 - 24.5	Pole	Max. Vy	20	-26.352	2407.802	-3.157
			Max. Vx	2			
			Max. Torque	15			0.675
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-76.215	-5.180	3.420

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L60	24.5 - 23	Pole	Max. Vx	2	-27.189	-7.485	2459.624
			Max. Torque	15			0.675
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-76.946	-5.250	3.438
			Max. Mx	20	-50.423	2447.313	-3.195
			Max. My	2	-50.393	-7.564	2500.414
			Max. Vy	20	-26.409	2447.313	-3.195
			Max. Vx	2	-27.245	-7.564	2500.414
L61	23 - 22.75	Pole	Max. Torque	15			0.675
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-77.077	-5.263	3.442
			Max. Mx	20	-50.548	2453.905	-3.202
			Max. My	2	-50.519	-7.577	2507.219
			Max. Vy	20	-26.390	2453.905	-3.202
			Max. Vx	2	-27.226	-7.577	2507.219
			Max. Torque	15			0.675
L62	22.75 - 21.583	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-77.689	-5.316	3.455
			Max. Mx	20	-51.048	2484.706	-3.231
			Max. My	2	-51.020	-7.639	2539.014
			Max. Vy	20	-26.450	2484.706	-3.231
			Max. Vx	2	-27.285	-7.639	2539.014
			Max. Torque	15			0.675
			Max Tension	1	0.000	0.000	0.000
L63	21.583 - 21.333	Pole	Max. Compression	26	-77.816	-5.328	3.458
			Max. Mx	20	-51.163	2491.310	-3.238
			Max. My	2	-51.136	-7.652	2545.831
			Max. Vy	20	-26.441	2491.310	-3.238
			Max. Vx	2	-27.276	-7.652	2545.831
			Max. Torque	15			0.675
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-80.327	-5.539	3.503
L64	21.333 - 16.333	Pole	Max. Mx	20	-53.263	2623.796	-3.364
			Max. My	2	-53.241	-7.914	2682.563
			Max. Vy	20	-26.608	2623.796	-3.364
			Max. Vx	2	-27.438	-7.914	2682.563
			Max. Torque	15			0.675
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-82.086	-5.648	3.469
			Max. Mx	20	-54.717	2714.766	-3.450
L65	16.333 - 12.917	Pole	Max. My	2	-54.700	-8.092	2776.394
			Max. Vy	20	-26.729	2714.766	-3.450
			Max. Vx	2	-27.539	-8.092	2776.394
			Max. Torque	15			0.675
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-82.224	-5.657	3.468
			Max. Mx	20	-54.843	2721.440	-3.456
			Max. My	2	-54.827	-8.105	2783.274
L66	12.917 - 12.667	Pole	Max. Vy	20	-26.718	2721.440	-3.456
			Max. Vx	2	-27.526	-8.105	2783.274
			Max. Torque	15			0.675
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-82.317	-5.662	3.466
			Max. Mx	20	-54.921	2725.899	-3.460
			Max. My	2	-54.905	-8.114	2787.872
			Max. Vy	20	-26.723	2725.899	-3.460
L67	12.667 - 12.5	Pole	Max. Vx	2	-27.531	-8.114	2787.872
			Max. Torque	15			0.675
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-82.317	-5.662	3.466

<b>tnxTower</b>  <b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	<b>Job</b> 79982.012.01 - WATERBURY,CT (BU# 876317)	<b>Page</b> 76 of 95
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	<b>Client</b> Crown Castle	<b>Designed by</b> Jayaraj B

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L68	12.5 - 12.25	Pole	Max. Torque	15			0.675
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-82.442	-5.670	3.463
			Max. Mx	20	-55.024	2732.576	-3.466
			Max. My	2	-55.009	-8.127	2794.755
			Max. Vy	20	-26.733	2732.576	-3.466
			Max. Vx	2	-27.539	-8.127	2794.755
			Max. Torque	15			0.675
L69	12.25 - 12	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-82.568	-5.678	3.461
			Max. Mx	20	-55.129	2739.256	-3.472
			Max. My	2	-55.113	-8.139	2801.640
			Max. Vy	20	-26.740	2739.256	-3.472
			Max. Vx	2	-27.545	-8.139	2801.640
			Max. Torque	15			0.675
			Max Tension	1	0.000	0.000	0.000
L70	12 - 11.75	Pole	Max. Compression	26	-82.688	-5.686	3.458
			Max. Mx	20	-55.228	2745.936	-3.479
			Max. My	2	-55.213	-8.152	2808.526
			Max. Vy	20	-26.747	2745.936	-3.479
			Max. Vx	2	-27.551	-8.152	2808.526
			Max. Torque	15			0.675
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-84.234	-5.778	3.432
L71	11.75 - 8.5	Pole	Max. Mx	20	-56.506	2833.130	-3.559
			Max. My	2	-56.496	-8.321	2898.194
			Max. Vy	20	-26.977	2833.130	-3.559
			Max. Vx	2	-27.661	-8.321	2898.194
			Max. Torque	15			0.675
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-84.374	-5.786	3.433
			Max. Mx	20	-56.638	2839.866	-3.565
L72	8.5 - 8.25	Pole	Max. My	2	-56.629	-8.333	2905.104
			Max. Vy	20	-26.973	2839.866	-3.565
			Max. Vx	2	-27.646	-8.333	2905.104
			Max. Torque	15			0.675
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-85.071	-5.821	3.434
			Max. Mx	20	-57.225	2873.628	-3.595
			Max. My	2	-57.217	-8.398	2939.701
L73	8.25 - 7	Pole	Max. Vy	20	-27.105	2873.628	-3.595
			Max. Vx	2	-27.732	-8.398	2939.701
			Max. Torque	15			0.675
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-85.198	-5.828	3.434
			Max. Mx	20	-57.343	2880.397	-3.601
			Max. My	2	-57.336	-8.411	2946.630
			Max. Vy	20	-27.105	2880.397	-3.601
L74	7 - 6.75	Pole	Max. Vx	2	-27.722	-8.411	2946.630
			Max. Torque	15			0.675
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-87.685	-5.956	3.432
			Max. Mx	20	-59.498	3016.799	-3.722
			Max. My	2	-59.496	-8.667	3085.777
			Max. Vy	20	-27.514	3016.799	-3.722
			Max. Vx	2	-27.959	-8.667	3085.777
L75	6.75 - 1.75	Pole	Max. Torque	15			0.675
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-88.535	-5.996	3.431
			Max. Mx	20	-60.254	3065.000	-3.763
			Max. My	2	-60.254	-8.756	3134.736
			Max. Vy	20	-27.514	3016.799	-3.722
			Max. Vx	2	-27.959	-8.667	3085.777
			Max. Torque	15			0.675
L76	1.75 - 0	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-88.535	-5.996	3.431
			Max. Mx	20	-60.254	3065.000	-3.763
			Max. My	2	-60.254	-8.756	3134.736

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	<b>Client</b>	Crown Castle	<b>Designed by</b>	Jayaraj B

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vy	20	-27.668	3065.000	-3.763
			Max. Vx	2	-28.054	-8.756	3134.736
			Max. Torque	15			0.675

### Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	38	88.535	3.788	6.584
	Max. H <sub>x</sub>	21	45.206	27.624	-0.029
	Max. H <sub>z</sub>	2	60.274	-0.038	28.009
	Max. M <sub>x</sub>	2	3134.736	-0.038	28.009
	Max. M <sub>z</sub>	8	3064.336	-27.589	0.020
	Max. Torsion	15	0.675	0.057	-27.996
	Min. Vert	5	45.206	-13.339	23.194
	Min. H <sub>x</sub>	8	60.274	-27.589	0.020
	Min. H <sub>z</sub>	14	60.274	0.057	-27.996
	Min. M <sub>x</sub>	14	-3130.328	0.057	-27.996
	Min. M <sub>z</sub>	20	-3065.000	27.624	-0.029
	Min. Torsion	3	-0.531	-0.038	28.009

### Tower Mast Reaction Summary

Load Combination	Vertical K	Shear <sub>x</sub> K	Shear <sub>z</sub> K	Overturning Moment, M <sub>x</sub> kip-ft	Overturning Moment, M <sub>z</sub> kip-ft	Torque kip-ft
Dead Only	50.229	0.000	-0.000	-1.159	-1.796	0.000
1.2 Dead+1.0 Wind 0 deg - No Ice	60.274	0.038	-28.009	-3134.736	-8.756	0.524
0.9 Dead+1.0 Wind 0 deg - No Ice	45.206	0.038	-28.009	-3069.046	-7.967	0.531
1.2 Dead+1.0 Wind 30 deg - No Ice	60.274	13.339	-23.194	-2634.994	-1515.988	0.216
0.9 Dead+1.0 Wind 30 deg - No Ice	45.206	13.339	-23.194	-2579.300	-1483.600	0.220
1.2 Dead+1.0 Wind 60 deg - No Ice	60.274	23.416	-13.666	-1532.757	-2616.873	-0.218
0.9 Dead+1.0 Wind 60 deg - No Ice	45.206	23.416	-13.666	-1500.184	-2561.442	-0.218
1.2 Dead+1.0 Wind 90 deg - No Ice	60.274	27.589	-0.020	-5.343	-3064.336	-0.165
0.9 Dead+1.0 Wind 90 deg - No Ice	45.206	27.589	-0.020	-4.826	-2999.659	-0.168
1.2 Dead+1.0 Wind 120 deg - No Ice	60.274	25.627	14.890	1606.248	-2764.511	-0.109
0.9 Dead+1.0 Wind 120 deg - No Ice	45.206	25.627	14.890	1573.571	-2707.083	-0.115
1.2 Dead+1.0 Wind 150 deg - No Ice	60.274	15.686	27.297	2904.437	-1668.880	-0.577
0.9 Dead+1.0 Wind 150 deg - No Ice	45.206	15.686	27.297	2845.564	-1634.297	-0.586
1.2 Dead+1.0 Wind 180 deg -	60.274	-0.057	27.996	3130.328	7.103	-0.667

Load Combination	Vertical K	Shear <sub>x</sub> K	Shear <sub>z</sub> K	Overturning Moment, M <sub>x</sub> kip-ft	Overturning Moment, M <sub>z</sub> kip-ft	Torque kip-ft
No Ice						
0.9 Dead+1.0 Wind 180 deg - No Ice	45.206	-0.057	27.996	3065.481	7.495	-0.675
1.2 Dead+1.0 Wind 210 deg - No Ice	60.274	-13.331	23.151	2628.259	1511.682	-0.448
0.9 Dead+1.0 Wind 210 deg - No Ice	45.206	-13.331	23.151	2573.436	1480.514	-0.453
1.2 Dead+1.0 Wind 240 deg - No Ice	60.274	-23.406	13.653	1528.896	2612.609	-0.144
0.9 Dead+1.0 Wind 240 deg - No Ice	45.206	-23.406	13.653	1497.151	2558.390	-0.145
1.2 Dead+1.0 Wind 270 deg - No Ice	60.274	-27.624	0.029	3.763	3065.000	0.134
0.9 Dead+1.0 Wind 270 deg - No Ice	45.206	-27.624	0.029	4.043	3001.446	0.138
1.2 Dead+1.0 Wind 300 deg - No Ice	60.274	-25.657	-14.879	-1607.576	2764.239	-0.032
0.9 Dead+1.0 Wind 300 deg - No Ice	45.206	-25.657	-14.879	-1574.104	2707.970	-0.026
1.2 Dead+1.0 Wind 330 deg - No Ice	60.274	-15.677	-27.299	-2907.638	1662.973	0.469
0.9 Dead+1.0 Wind 330 deg - No Ice	45.206	-15.677	-27.299	-2847.938	1629.677	0.477
1.2 Dead+1.0 Ice+1.0 Temp	88.535	0.000	-0.000	-3.431	-5.996	0.000
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	88.535	0.006	-6.686	-815.780	-7.480	0.098
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	88.535	3.308	-5.744	-702.371	-408.627	0.016
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	88.535	5.760	-3.352	-409.361	-701.781	-0.080
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	88.535	6.723	-0.003	-4.281	-813.063	-0.069
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	88.535	6.126	3.554	416.488	-729.495	-0.076
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	88.535	3.790	6.584	758.607	-444.283	-0.233
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	88.535	-0.010	6.686	808.679	-4.139	-0.129
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	88.535	-3.313	5.747	695.811	397.174	-0.065
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	88.535	-5.766	3.354	402.711	690.586	0.002
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	88.535	-6.731	0.005	-2.439	802.008	0.062
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	88.535	-6.132	-3.552	-423.148	718.182	0.047
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	88.535	-3.788	-6.584	-765.686	431.722	0.210
Dead+Wind 0 deg - Service	50.229	0.009	-6.837	-757.940	-3.439	0.130
Dead+Wind 30 deg - Service	50.229	3.255	-5.660	-636.880	-367.257	0.051
Dead+Wind 60 deg - Service	50.229	5.714	-3.335	-370.814	-632.986	-0.058
Dead+Wind 90 deg - Service	50.229	6.732	-0.005	-2.145	-741.002	-0.044
Dead+Wind 120 deg - Service	50.229	6.252	3.633	386.909	-668.738	-0.029
Dead+Wind 150 deg - Service	50.229	3.828	6.661	700.761	-404.494	-0.145
Dead+Wind 180 deg - Service	50.229	-0.014	6.833	755.149	0.371	-0.166
Dead+Wind 210 deg - Service	50.229	-3.253	5.649	633.529	363.549	-0.110
Dead+Wind 240 deg - Service	50.229	-5.711	3.331	368.159	629.290	-0.033
Dead+Wind 270 deg - Service	50.229	-6.740	0.007	0.042	738.500	0.037
Dead+Wind 300 deg - Service	50.229	-6.260	-3.630	-388.951	666.013	-0.006
Dead+Wind 330 deg - Service	50.229	-3.826	-6.662	-703.258	400.407	0.118

**Solution Summary**

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
1	0.000	-50.229	0.000	-0.000	50.229	0.000	0.000%
2	0.038	-60.274	-28.009	-0.038	60.274	28.009	0.000%
3	0.038	-45.206	-28.009	-0.038	45.206	28.009	0.000%
4	13.339	-60.274	-23.194	-13.339	60.274	23.194	0.000%
5	13.339	-45.206	-23.194	-13.339	45.206	23.194	0.000%
6	23.416	-60.274	-13.666	-23.416	60.274	13.666	0.000%
7	23.416	-45.206	-13.666	-23.416	45.206	13.666	0.000%
8	27.589	-60.274	-0.020	-27.589	60.274	0.020	0.000%
9	27.589	-45.206	-0.020	-27.589	45.206	0.020	0.000%
10	25.627	-60.274	14.890	-25.627	60.274	-14.890	0.000%
11	25.627	-45.206	14.890	-25.627	45.206	-14.890	0.000%
12	15.686	-60.274	27.297	-15.686	60.274	-27.297	0.000%
13	15.686	-45.206	27.297	-15.686	45.206	-27.297	0.000%
14	-0.057	-60.274	27.996	0.057	60.274	-27.996	0.000%
15	-0.057	-45.206	27.996	0.057	45.206	-27.996	0.000%
16	-13.331	-60.274	23.151	13.331	60.274	-23.151	0.000%
17	-13.331	-45.206	23.151	13.331	45.206	-23.151	0.000%
18	-23.406	-60.274	13.653	23.406	60.274	-13.653	0.000%
19	-23.406	-45.206	13.653	23.406	45.206	-13.653	0.000%
20	-27.624	-60.274	0.029	27.624	60.274	-0.029	0.000%
21	-27.624	-45.206	0.029	27.624	45.206	-0.029	0.000%
22	-25.657	-60.274	-14.879	25.657	60.274	14.879	0.000%
23	-25.657	-45.206	-14.879	25.657	45.206	14.879	0.000%
24	-15.677	-60.274	-27.299	15.677	60.274	27.299	0.000%
25	-15.677	-45.206	-27.299	15.677	45.206	27.299	0.000%
26	0.000	-88.535	0.000	-0.000	88.535	0.000	0.000%
27	0.006	-88.535	-6.686	-0.006	88.535	6.686	0.000%
28	3.308	-88.535	-5.744	-3.308	88.535	5.744	0.000%
29	5.760	-88.535	-3.352	-5.760	88.535	3.352	0.000%
30	6.723	-88.535	-0.003	-6.723	88.535	0.003	0.000%
31	6.126	-88.535	3.554	-6.126	88.535	-3.554	0.000%
32	3.790	-88.535	6.584	-3.790	88.535	-6.584	0.000%
33	-0.010	-88.535	6.686	0.010	88.535	-6.686	0.000%
34	-3.313	-88.535	5.747	3.313	88.535	-5.747	0.000%
35	-5.766	-88.535	3.354	5.766	88.535	-3.354	0.000%
36	-6.731	-88.535	0.005	6.731	88.535	-0.005	0.000%
37	-6.132	-88.535	-3.552	6.132	88.535	3.552	0.000%
38	-3.788	-88.535	-6.584	3.788	88.535	6.584	0.000%
39	0.009	-50.229	-6.837	-0.009	50.229	6.837	0.000%
40	3.255	-50.229	-5.660	-3.255	50.229	5.660	0.000%
41	5.714	-50.229	-3.335	-5.714	50.229	3.335	0.000%
42	6.732	-50.229	-0.005	-6.732	50.229	0.005	0.000%
43	6.252	-50.229	3.633	-6.252	50.229	-3.633	0.000%
44	3.828	-50.229	6.661	-3.828	50.229	-6.661	0.000%
45	-0.014	-50.229	6.833	0.014	50.229	-6.833	0.000%
46	-3.253	-50.229	5.649	3.253	50.229	-5.649	0.000%
47	-5.711	-50.229	3.331	5.711	50.229	-3.331	0.000%
48	-6.740	-50.229	0.007	6.740	50.229	-0.007	0.000%
49	-6.260	-50.229	-3.630	6.260	50.229	3.630	0.000%
50	-3.826	-50.229	-6.662	3.826	50.229	6.662	0.000%

<b>tnxTower</b>  <b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	<b>Job</b> 79982.012.01 - WATERBURY, CT (BU# 876317)	<b>Page</b> 80 of 95
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	<b>Client</b> Crown Castle	<b>Designed by</b> Jayaraj B

## Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	4	0.0000001	0.00002131
2	Yes	6	0.0000001	0.00059662
3	Yes	6	0.0000001	0.00020406
4	Yes	8	0.0000001	0.00020562
5	Yes	7	0.0000001	0.00052102
6	Yes	8	0.0000001	0.00020526
7	Yes	7	0.0000001	0.00052006
8	Yes	6	0.0000001	0.00031895
9	Yes	6	0.0000001	0.00010310
10	Yes	8	0.0000001	0.00021360
11	Yes	7	0.0000001	0.00053634
12	Yes	8	0.0000001	0.00022749
13	Yes	7	0.0000001	0.00056730
14	Yes	6	0.0000001	0.00035108
15	Yes	6	0.0000001	0.00011947
16	Yes	8	0.0000001	0.00020229
17	Yes	7	0.0000001	0.00051225
18	Yes	8	0.0000001	0.00020488
19	Yes	7	0.0000001	0.00051940
20	Yes	6	0.0000001	0.00018110
21	Yes	5	0.0000001	0.00070142
22	Yes	8	0.0000001	0.00021487
23	Yes	7	0.0000001	0.00053990
24	Yes	8	0.0000001	0.00022279
25	Yes	7	0.0000001	0.00055445
26	Yes	5	0.0000001	0.00063636
27	Yes	8	0.0000001	0.00021518
28	Yes	8	0.0000001	0.00030607
29	Yes	8	0.0000001	0.00030639
30	Yes	8	0.0000001	0.00021448
31	Yes	8	0.0000001	0.00030927
32	Yes	8	0.0000001	0.00033040
33	Yes	8	0.0000001	0.00021115
34	Yes	8	0.0000001	0.00029139
35	Yes	8	0.0000001	0.00029226
36	Yes	8	0.0000001	0.00020951
37	Yes	8	0.0000001	0.00030916
38	Yes	8	0.0000001	0.00032394
39	Yes	5	0.0000001	0.00045213
40	Yes	6	0.0000001	0.00034225
41	Yes	6	0.0000001	0.00034135
42	Yes	5	0.0000001	0.00037599
43	Yes	6	0.0000001	0.00035817
44	Yes	6	0.0000001	0.00041081
45	Yes	5	0.0000001	0.00044867
46	Yes	6	0.0000001	0.00032046
47	Yes	6	0.0000001	0.00032994
48	Yes	5	0.0000001	0.00036251
49	Yes	6	0.0000001	0.00036242
50	Yes	6	0.0000001	0.00038879

## Maximum Tower Deflections - Service Wind

**tnxTower**

**B+T Group**  
 1717 S. Boulder, Suite 300  
 Tulsa, OK 74119  
 Phone: (918) 587-4630  
 FAX: (918) 295-0265

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**Project**  
**Date**  
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**Client**  
 Crown Castle  
**Designed by**  
 Jayaraj B

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	144.25 - 139.25	33.223	50	2.379	0.007
L2	139.25 - 134.75	30.737	50	2.366	0.006
L3	134.75 - 134.25	28.527	50	2.320	0.006
L4	134.25 - 129.25	28.285	50	2.313	0.006
L5	129.25 - 124.25	25.930	50	2.181	0.004
L6	124.25 - 123.416	23.735	50	2.004	0.003
L7	123.416 - 123.166	23.388	50	1.971	0.002
L8	123.166 - 118.166	23.285	50	1.968	0.002
L9	118.166 - 113.166	21.269	50	1.883	0.002
L10	113.166 - 109.5	19.349	50	1.783	0.001
L11	109.5 - 109.25	18.011	50	1.702	0.001
L12	109.25 - 104.75	17.922	50	1.698	0.001
L13	104.75 - 104.5	16.364	50	1.607	0.001
L14	104.5 - 102.416	16.280	50	1.603	0.001
L15	102.416 - 102.166	15.588	50	1.570	0.001
L16	102.166 - 98.75	15.506	50	1.564	0.001
L17	98.75 - 98.5	14.414	50	1.488	0.001
L18	98.5 - 97.5	14.336	50	1.485	0.001
L19	97.5 - 97.25	14.027	50	1.469	0.001
L20	97.25 - 92	13.950	50	1.465	0.001
L21	95.552 - 90.552	13.435	50	1.435	0.001
L22	90.552 - 89.25	11.958	50	1.377	0.001
L23	89.25 - 89	11.585	50	1.354	0.001
L24	89 - 88.25	11.515	50	1.350	0.001
L25	88.25 - 88	11.303	50	1.339	0.001
L26	88 - 87.833	11.233	50	1.334	0.001
L27	87.833 - 87.583	11.187	50	1.331	0.001
L28	87.583 - 82.583	11.117	50	1.326	0.001
L29	82.583 - 77.583	9.786	50	1.217	0.001
L30	77.583 - 77	8.571	50	1.104	0.000
L31	77 - 76.75	8.437	50	1.092	0.000
L32	76.75 - 76.333	8.380	50	1.087	0.000
L33	76.333 - 76.083	8.285	50	1.080	0.000
L34	76.083 - 74.25	8.229	50	1.076	0.000
L35	74.25 - 74	7.822	50	1.044	0.000
L36	74 - 73.75	7.767	50	1.040	0.000
L37	73.75 - 73.5	7.713	50	1.036	0.000
L38	73.5 - 68.5	7.659	50	1.032	0.000
L39	68.5 - 63.5	6.621	50	0.951	0.000
L40	63.5 - 60.5	5.667	50	0.870	0.000
L41	60.5 - 60.25	5.136	50	0.821	0.000
L42	60.25 - 59.5	5.093	50	0.817	0.000
L43	59.5 - 59.25	4.966	50	0.805	0.000
L44	59.25 - 54.25	4.924	50	0.801	0.000
L45	54.25 - 45.802	4.126	50	0.723	0.000
L46	50 - 44.802	3.512	50	0.658	0.000
L47	44.802 - 43.583	2.818	50	0.610	0.000
L48	43.583 - 43.333	2.665	50	0.591	0.000
L49	43.333 - 43.166	2.634	50	0.588	0.000
L50	43.166 - 42.916	2.613	50	0.585	0.000
L51	42.916 - 39	2.583	50	0.582	0.000
L52	39 - 38.75	2.128	50	0.526	0.000
L53	38.75 - 37.166	2.101	50	0.523	0.000
L54	37.166 - 36.916	1.931	50	0.502	0.000
L55	36.916 - 34	1.905	50	0.499	0.000
L56	34 - 33.75	1.613	50	0.458	0.000
L57	33.75 - 29.75	1.589	50	0.454	0.000
L58	29.75 - 29.5	1.232	50	0.398	0.000
L59	29.5 - 24.5	1.211	50	0.395	0.000
L60	24.5 - 23	0.834	50	0.326	0.000
L61	23 - 22.75	0.734	50	0.306	0.000



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	<b>Client</b> Crown Castle	<b>Designed by</b> Jayaraj B

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L62	22.75 - 21.583	0.718	50	0.303	0.000
L63	21.583 - 21.333	0.646	50	0.289	0.000
L64	21.333 - 16.333	0.631	50	0.286	0.000
L65	16.333 - 12.917	0.367	50	0.219	0.000
L66	12.917 - 12.667	0.226	50	0.174	0.000
L67	12.667 - 12.5	0.217	50	0.171	0.000
L68	12.5 - 12.25	0.211	50	0.169	0.000
L69	12.25 - 12	0.203	50	0.166	0.000
L70	12 - 11.75	0.194	50	0.162	0.000
L71	11.75 - 8.5	0.186	50	0.158	0.000
L72	8.5 - 8.25	0.096	50	0.106	0.000
L73	8.25 - 7	0.090	50	0.104	0.000
L74	7 - 6.75	0.065	50	0.089	0.000
L75	6.75 - 1.75	0.060	50	0.086	0.000
L76	1.75 - 0	0.004	50	0.022	0.000

### Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
144.000	EPBQ-654L8H8-L2 w/ Mount Pipe	50	33.098	2.379	0.008	8667
133.000	VHLP2-23	50	27.684	2.291	0.006	2573
130.000	(2) APXVSP18-C-A20 w/ Mount Pipe	50	26.274	2.205	0.006	1917
120.000	MX08FRO665-21 w/ Mount Pipe	50	21.998	1.917	0.003	3054
110.000	SBNHH-1D65B w/ Mount Pipe	50	18.190	1.712	0.002	2734
100.000	AIR -32 B2A/B66AA w/ Mount Pipe	50	14.807	1.513	0.001	2929
50.000	KS24019-L112A	50	3.512	0.658	0.000	4965

### Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	144.25 - 139.25	137.239	24	9.865	0.029
L2	139.25 - 134.75	127.011	24	9.809	0.026
L3	134.75 - 134.25	117.921	24	9.617	0.023
L4	134.25 - 129.25	116.924	24	9.591	0.022
L5	129.25 - 124.25	107.229	24	9.041	0.018
L6	124.25 - 123.416	98.188	24	8.311	0.011
L7	123.416 - 123.166	96.757	24	8.176	0.010
L8	123.166 - 118.166	96.332	24	8.160	0.010
L9	118.166 - 113.166	88.013	24	7.810	0.008
L10	113.166 - 109.5	80.088	24	7.396	0.006
L11	109.5 - 109.25	74.561	24	7.063	0.005
L12	109.25 - 104.75	74.194	24	7.044	0.005
L13	104.75 - 104.5	67.757	24	6.668	0.004
L14	104.5 - 102.416	67.409	24	6.652	0.004
L15	102.416 - 102.166	64.547	24	6.513	0.004
L16	102.166 - 98.75	64.208	24	6.491	0.004

**tnxTower**

**B+T Group**  
 1717 S. Boulder, Suite 300  
 Tulsa, OK 74119  
 Phone: (918) 587-4630  
 FAX: (918) 295-0265

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**Client**  
 Crown Castle  
**Designed by**  
 Jayaraj B

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L17	98.75 - 98.5	59.692	24	6.176	0.003
L18	98.5 - 97.5	59.370	24	6.160	0.003
L19	97.5 - 97.25	58.091	24	6.096	0.003
L20	97.25 - 92	57.774	24	6.078	0.003
L21	95.552 - 90.552	55.641	24	5.953	0.003
L22	90.552 - 89.25	49.529	24	5.714	0.003
L23	89.25 - 89	47.989	24	5.616	0.003
L24	89 - 88.25	47.696	24	5.601	0.003
L25	88.25 - 88	46.822	24	5.554	0.003
L26	88 - 87.833	46.533	24	5.535	0.003
L27	87.833 - 87.583	46.340	24	5.522	0.003
L28	87.583 - 82.583	46.052	24	5.500	0.003
L29	82.583 - 77.583	40.542	24	5.049	0.002
L30	77.583 - 77	35.510	24	4.582	0.002
L31	77 - 76.75	34.954	24	4.529	0.002
L32	76.75 - 76.333	34.718	24	4.511	0.002
L33	76.333 - 76.083	34.326	24	4.481	0.002
L34	76.083 - 74.25	34.093	24	4.463	0.002
L35	74.25 - 74	32.407	24	4.331	0.002
L36	74 - 73.75	32.181	24	4.314	0.002
L37	73.75 - 73.5	31.956	24	4.297	0.002
L38	73.5 - 68.5	31.732	24	4.281	0.002
L39	68.5 - 63.5	27.431	24	3.946	0.001
L40	63.5 - 60.5	23.481	12	3.609	0.001
L41	60.5 - 60.25	21.281	12	3.404	0.001
L42	60.25 - 59.5	21.103	12	3.388	0.001
L43	59.5 - 59.25	20.576	12	3.337	0.001
L44	59.25 - 54.25	20.401	12	3.322	0.001
L45	54.25 - 45.802	17.095	12	2.999	0.001
L46	50 - 44.802	14.549	12	2.728	0.001
L47	44.802 - 43.583	11.674	12	2.529	0.001
L48	43.583 - 43.333	11.039	12	2.451	0.001
L49	43.333 - 43.166	10.911	12	2.436	0.001
L50	43.166 - 42.916	10.826	12	2.425	0.001
L51	42.916 - 39	10.700	12	2.411	0.001
L52	39 - 38.75	8.817	12	2.182	0.001
L53	38.75 - 37.166	8.703	12	2.168	0.001
L54	37.166 - 36.916	7.999	12	2.081	0.001
L55	36.916 - 34	7.890	12	2.067	0.001
L56	34 - 33.75	6.680	12	1.898	0.000
L57	33.75 - 29.75	6.581	12	1.883	0.000
L58	29.75 - 29.5	5.101	12	1.651	0.000
L59	29.5 - 24.5	5.015	12	1.637	0.000
L60	24.5 - 23	3.452	12	1.350	0.000
L61	23 - 22.75	3.041	12	1.266	0.000
L62	22.75 - 21.583	2.975	12	1.254	0.000
L63	21.583 - 21.333	2.676	12	1.197	0.000
L64	21.333 - 16.333	2.614	12	1.183	0.000
L65	16.333 - 12.917	1.520	12	0.907	0.000
L66	12.917 - 12.667	0.938	12	0.721	0.000
L67	12.667 - 12.5	0.900	12	0.709	0.000
L68	12.5 - 12.25	0.876	12	0.701	0.000
L69	12.25 - 12	0.839	12	0.686	0.000
L70	12 - 11.75	0.804	12	0.672	0.000
L71	11.75 - 8.5	0.769	12	0.656	0.000
L72	8.5 - 8.25	0.396	12	0.440	0.000
L73	8.25 - 7	0.373	12	0.429	0.000
L74	7 - 6.75	0.269	12	0.370	0.000
L75	6.75 - 1.75	0.250	12	0.357	0.000
L76	1.75 - 0	0.017	12	0.090	0.000

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	<b>Client</b> Crown Castle	<b>Designed by</b> Jayaraj B

### Critical Deflections and Radius of Curvature - Design Wind

Elevation	Appurtenance	Gov. Load Comb.	Deflection	Tilt	Twist	Radius of Curvature
ft			in	°	°	ft
144.000	EPBQ-654L8H8-L2 w/ Mount Pipe	24	136.726	9.864	0.035	2193
133.000	VHLP2-23	24	114.449	9.496	0.027	653
130.000	(2) APXVSP18-C-A20 w/ Mount Pipe	24	108.646	9.139	0.024	491
120.000	MX08FRO665-21 w/ Mount Pipe	24	91.022	7.953	0.011	771
110.000	SBNHH-1D65B w/ Mount Pipe	24	75.300	7.103	0.006	683
100.000	AIR -32 B2A/B66AA w/ Mount Pipe	24	61.319	6.279	0.005	726
50.000	KS24019-L112A	12	14.549	2.728	0.001	1202

### Compression Checks

### Pole Design Data

Section No.	Elevation	Size	L	L <sub>u</sub>	Kl/r	A	P <sub>u</sub>	φP <sub>n</sub>	Ratio
	ft		ft	ft		in <sup>2</sup>	K	K	$\frac{P_u}{\phi P_n}$
L1	144.25 - 139.25 (1)	TP12.75x12.75x0.375	5.000	0.000	0.0	14.579	-5.140	603.569	0.009
L2	139.25 - 134.75 (2)	TP12.75x12.75x0.375	4.500	0.000	0.0	14.579	-5.424	603.569	0.009
L3	134.75 - 134.25 (3)	TP13.48x13.48x0.375	0.500	0.000	0.0	15.439	-5.461	639.173	0.009
L4	134.25 - 129.25 (4)	TP14.466x13.48x0.188	5.000	0.000	0.0	8.621	-9.099	504.301	0.018
L5	129.25 - 124.25 (5)	TP15.452x14.466x0.188	5.000	0.000	0.0	9.216	-9.446	539.118	0.018
L6	124.25 - 123.416 (6)	TP15.616x15.452x0.188	0.834	0.000	0.0	9.315	-9.511	544.926	0.017
L7	123.416 - 123.166 (7)	TP15.665x15.616x0.538	0.250	0.000	0.0	26.183	-9.550	1531.670	0.006
L8	123.166 - 118.166 (8)	TP16.651x15.665x0.513	5.000	0.000	0.0	26.633	-12.985	1558.020	0.008
L9	118.166 - 113.166 (9)	TP17.637x16.651x0.488	5.000	0.000	0.0	26.920	-13.499	1574.840	0.009
L10	113.166 - 109.5 (10)	TP18.36x17.637x0.475	3.666	0.000	0.0	27.355	-17.304	1600.250	0.011
L11	109.5 - 109.25 (11)	TP18.409x18.36x0.588	0.250	0.000	0.0	33.714	-17.362	1972.260	0.009
L12	109.25 - 104.75 (12)	TP19.296x18.409x0.563	4.500	0.000	0.0	33.931	-18.098	1984.990	0.009
L13	104.75 - 104.5 (13)	TP19.346x19.296x0.775	0.250	0.000	0.0	46.343	-18.166	2711.050	0.007
L14	104.5 - 102.416 (14)	TP19.756x19.346x0.763	2.084	0.000	0.0	46.635	-18.599	2728.130	0.007
L15	102.416 - 102.166 (15)	TP19.806x19.756x0.563	0.250	0.000	0.0	34.854	-18.658	2038.970	0.009
L16	102.166 -	TP20.479x19.806x0.55	3.416	0.000	0.0	35.295	-23.276	2064.730	0.011

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	<p><b>Client</b></p> <p>Crown Castle</p>	<p><b>Designed by</b></p> <p>Jayaraj B</p>

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> K	φP <sub>n</sub> K	Ratio $\frac{P_u}{\phi P_n}$
L17	98.75 (16) 98.75 - 98.5 (17)	TP20.528x20.479x0.838	0.250	0.000	0.0	53.102	-23.360	3106.440	0.008
L18	98.5 - 97.5 (18)	TP20.726x20.528x0.838	1.000	0.000	0.0	53.633	-23.611	3137.550	0.008
L19	97.5 - 97.25 (19)	TP20.775x20.726x0.75	0.250	0.000	0.0	48.360	-23.684	2829.070	0.008
L20	97.25 - 92 (20)	TP21.81x20.775x0.738	5.250	0.000	0.0	48.379	-24.092	2830.160	0.009
L21	92 - 90.552 (21)	TP21.73x20.735x0.8	5.000	0.000	0.0	53.916	-26.131	3154.100	0.008
L22	90.552 - 89.25 (22)	TP21.989x21.73x0.775	1.302	0.000	0.0	52.941	-26.493	3097.030	0.009
L23	89.25 - 89 (23)	TP22.039x21.989x1	0.250	0.000	0.0	67.746	-26.589	3963.150	0.007
L24	89 - 88.25 (24)	TP22.189x22.039x0.975	0.750	0.000	0.0	66.600	-26.816	3896.090	0.007
L25	88.25 - 88 (25)	TP22.238x22.189x0.763	0.250	0.000	0.0	52.729	-26.890	3084.620	0.009
L26	88 - 87.833 (26)	TP22.272x22.238x0.763	0.167	0.000	0.0	52.810	-26.936	3089.390	0.009
L27	87.833 - 87.583 (27)	TP22.321x22.272x0.675	0.250	0.000	0.0	47.048	-26.997	2752.330	0.010
L28	87.583 - 82.583 (28)	TP23.317x22.321x0.65	5.000	0.000	0.0	47.442	-28.240	2775.340	0.010
L29	82.583 - 77.583 (29)	TP24.312x23.317x0.625	5.000	0.000	0.0	47.671	-29.529	2788.740	0.011
L30	77.583 - 77 (30)	TP24.428x24.312x0.625	0.583	0.000	0.0	47.904	-29.690	2802.410	0.011
L31	77 - 76.75 (31)	TP24.478x24.428x0.825	0.250	0.000	0.0	62.835	-29.774	3675.830	0.008
L32	76.75 - 76.333 (32)	TP24.561x24.478x0.825	0.417	0.000	0.0	63.055	-29.898	3688.730	0.008
L33	76.333 - 76.083 (33)	TP24.611x24.561x0.825	0.250	0.000	0.0	63.188	-29.973	3696.470	0.008
L34	76.083 - 74.25 (34)	TP24.976x24.611x0.8	1.833	0.000	0.0	62.277	-30.480	3643.220	0.008
L35	74.25 - 74 (35)	TP25.026x24.976x0.888	0.250	0.000	0.0	68.981	-30.582	4035.390	0.008
L36	74 - 73.75 (36)	TP25.076x25.026x0.888	0.250	0.000	0.0	69.123	-30.658	4043.710	0.008
L37	73.75 - 73.5 (37)	TP25.125x25.076x0.913	0.250	0.000	0.0	71.143	-30.737	4161.880	0.007
L38	73.5 - 68.5 (38)	TP26.121x25.125x0.875	5.000	0.000	0.0	71.130	-32.297	4161.110	0.008
L39	68.5 - 63.5 (39)	TP27.116x26.121x0.85	5.000	0.000	0.0	71.891	-33.893	4205.620	0.008
L40	63.5 - 60.5 (40)	TP27.714x27.116x0.825	3.000	0.000	0.0	71.430	-34.865	4178.630	0.008
L41	60.5 - 60.25 (41)	TP27.763x27.714x0.825	0.250	0.000	0.0	71.562	-34.959	4186.370	0.008
L42	60.25 - 59.5 (42)	TP27.913x27.763x0.825	0.750	0.000	0.0	71.959	-35.197	4209.570	0.008
L43	59.5 - 59.25 (43)	TP27.962x27.913x0.888	0.250	0.000	0.0	77.373	-35.291	4526.350	0.008
L44	59.25 - 54.25 (44)	TP28.958x27.962x0.85	5.000	0.000	0.0	76.932	-36.994	4500.500	0.008
L45	54.25 - 45.802 (45)	TP30.64x28.958x0.838	8.448	0.000	0.0	78.116	-38.471	4569.780	0.008
L46	45.802 - 44.802 (46)	TP30.333x29.304x0.838	5.198	0.000	0.0	79.542	-41.597	4653.200	0.009
L47	44.802 - 43.583 (47)	TP30.574x30.333x0.838	1.219	0.000	0.0	80.192	-42.034	4691.260	0.009
L48	43.583 - 43.333 (48)	TP30.624x30.574x0.85	0.250	0.000	0.0	81.491	-42.145	4767.200	0.009
L49	43.333 - 43.166 (49)	TP30.657x30.624x0.85	0.167	0.000	0.0	81.581	-42.210	4772.490	0.009
L50	43.166 - 42.916 (50)	TP30.706x30.657x0.938	0.250	0.000	0.0	89.864	-42.308	5257.060	0.008
L51	42.916 - 39 (51)	TP31.481x30.706x0.913	3.916	0.000	0.0	89.819	-43.846	5254.390	0.008

<b>tnxTower</b>  <b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	<b>Job</b>	79982.012.01 - WATERBURY,CT (BU# 876317)	<b>Page</b>	86 of 95
	<b>Project</b>		<b>Date</b>	16:40:32 05/09/22
	<b>Client</b>	Crown Castle		<b>Designed by</b>

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> K	φP <sub>n</sub> K	Ratio P <sub>u</sub> / φP <sub>n</sub>
L52	39 - 38.75 (52)	TP31.531x31.481x0.95	0.250	0.000	0.0	93.547	-43.966	5472.470	0.008
L53	38.75 - 37.166 (53)	TP31.844x31.531x0.938	1.584	0.000	0.0	93.300	-44.607	5458.030	0.008
L54	37.166 - 36.916 (54)	TP31.894x31.844x0.888	0.250	0.000	0.0	88.608	-44.727	5183.570	0.009
L55	36.916 - 34 (55)	TP32.471x31.894x0.888	2.916	0.000	0.0	90.257	-45.896	5280.050	0.009
L56	34 - 33.75 (56)	TP32.52x32.471x0.875	0.250	0.000	0.0	89.161	-46.013	5215.900	0.009
L57	33.75 - 29.75 (57)	TP33.312x32.52x0.863	4.000	0.000	0.0	88.471	-46.423	5175.570	0.009
L58	29.75 - 29.5 (58)	TP33.361x33.312x0.863	0.250	0.000	0.0	90.120	-47.599	5272.040	0.009
L59	29.5 - 24.5 (59)	TP34.351x33.361x0.85	5.000	0.000	0.0	88.984	-47.711	5205.560	0.009
L60	24.5 - 23 (60)	TP34.648x34.351x0.838	1.500	0.000	0.0	90.378	-49.728	5287.090	0.009
L61	23 - 22.75 (61)	TP34.697x34.648x0.963	0.250	0.000	0.0	104.400	-50.319	6107.370	0.008
L62	22.75 - 21.583 (62)	TP34.928x34.697x0.963	1.167	0.000	0.0	104.553	-50.441	6116.340	0.008
L63	21.583 - 21.333 (63)	TP34.978x34.928x0.85	0.250	0.000	0.0	93.272	-50.945	5456.440	0.009
L64	21.333 - 16.333 (64)	TP35.967x34.978x0.838	5.000	0.000	0.0	92.068	-51.063	5385.980	0.009
L65	16.333 - 12.917 (65)	TP36.644x35.967x0.825	3.416	0.000	0.0	93.356	-53.199	5461.320	0.010
L66	12.917 - 12.667 (66)	TP36.693x36.644x0.913	0.250	0.000	0.0	104.987	-54.660	6141.720	0.009
L67	12.667 - 12.5 (67)	TP36.726x36.693x0.913	0.167	0.000	0.0	105.132	-54.775	6150.220	0.009
L68	12.5 - 12.25 (68)	TP36.776x36.726x0.763	0.250	0.000	0.0	88.299	-54.855	5165.520	0.011
L69	12.25 - 12 (69)	TP36.825x36.776x0.763	0.250	0.000	0.0	88.421	-54.961	5172.630	0.011
L70	12 - 11.75 (70)	TP36.874x36.825x0.663	0.250	0.000	0.0	77.144	-55.067	4512.900	0.012
L71	11.75 - 8.5 (71)	TP37.518x36.874x0.65	3.250	0.000	0.0	75.818	-55.183	4435.340	0.012
L72	8.5 - 8.25 (72)	TP37.567x37.518x0.925	0.250	0.000	0.0	108.991	-56.479	6376.000	0.009
L73	8.25 - 7 (73)	TP37.815x37.567x0.913	1.250	0.000	0.0	107.701	-56.612	6300.490	0.009
L74	7 - 6.75 (74)	TP37.864x37.815x0.813	0.250	0.000	0.0	96.807	-57.203	5663.190	0.010
L75	6.75 - 1.75 (75)	TP38.854x37.864x0.788	5.000	0.000	0.0	94.017	-57.323	5499.990	0.010
L76	1.75 - 0 (76)	TP39.2x38.854x0.788	1.750	0.000	0.0	96.526	-59.524	5646.780	0.011

### Pole Bending Design Data

Section No.	Elevation ft	Size	M <sub>ux</sub> kip-ft	φM <sub>ux</sub> kip-ft	Ratio M <sub>ux</sub> / φM <sub>ux</sub>	M <sub>uy</sub> kip-ft	φM <sub>uy</sub> kip-ft	Ratio M <sub>uy</sub> / φM <sub>uy</sub>
L1	144.25 - 139.25 (1)	TP12.75x12.75x0.375	27.041	198.187	0.136	0.000	198.187	0.000
L2	139.25 - 134.75 (2)	TP12.75x12.75x0.375	57.297	198.187	0.289	0.000	198.187	0.000
L3	134.75 - 134.25 (3)	TP13.48x13.48x0.375	60.703	222.251	0.273	0.000	222.251	0.000
L4	134.25 - 129.25 (4)	TP14.466x13.48x0.188	100.669	183.885	0.547	0.000	183.885	0.000
L5	129.25 - 124.25 (5)	TP15.452x14.466x0.188	157.363	210.328	0.748	0.000	210.328	0.000
L6	124.25 - 123.416 (6)	TP15.616x15.452x0.188	166.898	214.735	0.777	0.000	214.735	0.000
L7	123.416 - 123.166 (7)	TP15.665x15.616x0.538	169.762	578.929	0.293	0.000	578.929	0.000
L8	123.166 -	TP16.651x15.665x0.513	233.015	630.532	0.370	0.000	630.532	0.000

Section No.	Elevation ft	Size	$M_{ux}$ kip-ft	$\phi M_{ux}$ kip-ft	Ratio $\frac{M_{ux}}{\phi M_{ux}}$	$M_{uy}$ kip-ft	$\phi M_{uy}$ kip-ft	Ratio $\frac{M_{uy}}{\phi M_{uy}}$
L9	118.166 (8)							
	118.166 - 113.166 (9)	TP17.637x16.651x0.488	307.582	679.450	0.453	0.000	679.450	0.000
L10	113.166 - 109.5 (10)	TP18.36x17.637x0.475	365.809	721.324	0.507	0.000	721.324	0.000
L11	109.5 - 109.25 (11)	TP18.409x18.36x0.588	370.788	880.375	0.421	0.000	880.375	0.000
L12	109.25 - 104.75 (12)	TP19.296x18.409x0.563	461.273	934.067	0.494	0.000	934.067	0.000
L13	104.75 - 104.5 (13)	TP19.346x19.296x0.775	466.350	1250.400	0.373	0.000	1250.400	0.000
L14	104.5 - 102.416 (14)	TP19.756x19.346x0.763	508.892	1288.933	0.395	0.000	1288.933	0.000
L15	102.416 - 102.166 (15)	TP19.806x19.756x0.563	514.023	986.325	0.521	0.000	986.325	0.000
L16	102.166 - 98.75 (16)	TP20.479x19.806x0.55	590.177	1036.033	0.570	0.000	1036.033	0.000
L17	98.75 - 98.5 (17)	TP20.528x20.479x0.838	596.112	1518.050	0.393	0.000	1518.050	0.000
L18	98.5 - 97.5 (18)	TP20.726x20.528x0.838	619.915	1549.233	0.400	0.000	1549.233	0.000
L19	97.5 - 97.25 (19)	TP20.775x20.726x0.75	625.881	1412.833	0.443	0.000	1412.833	0.000
L20	97.25 - 92 (20)	TP21.81x20.775x0.738	666.550	1439.625	0.463	0.000	1439.625	0.000
L21	92 - 90.552 (21)	TP21.73x20.735x0.8	788.248	1645.142	0.479	0.000	1645.142	0.000
L22	90.552 - 89.25 (22)	TP21.989x21.73x0.775	820.368	1639.983	0.500	0.000	1639.983	0.000
L23	89.25 - 89 (23)	TP22.039x21.989x1	826.553	2059.442	0.401	0.000	2059.442	0.000
L24	89 - 88.25 (24)	TP22.189x22.039x0.975	845.150	2044.433	0.413	0.000	2044.433	0.000
L25	88.25 - 88 (25)	TP22.238x22.189x0.763	851.358	1655.175	0.514	0.000	1655.175	0.000
L26	88 - 87.833 (26)	TP22.272x22.238x0.763	855.508	1660.392	0.515	0.000	1660.392	0.000
L27	87.833 - 87.583 (27)	TP22.321x22.272x0.675	861.725	1494.833	0.576	0.000	1494.833	0.000
L28	87.583 - 82.583 (28)	TP23.317x22.321x0.65	987.142	1582.242	0.624	0.000	1582.242	0.000
L29	82.583 - 77.583 (29)	TP24.312x23.317x0.625	1114.475	1665.175	0.669	0.000	1665.175	0.000
L30	77.583 - 77 (30)	TP24.428x24.312x0.625	1129.450	1681.742	0.672	0.000	1681.742	0.000
L31	77 - 76.75 (31)	TP24.478x24.428x0.825	1135.875	2173.708	0.523	0.000	2173.708	0.000
L32	76.75 - 76.333 (32)	TP24.561x24.478x0.825	1146.608	2189.250	0.524	0.000	2189.250	0.000
L33	76.333 - 76.083 (33)	TP24.611x24.561x0.825	1153.050	2198.600	0.524	0.000	2198.600	0.000
L34	76.083 - 74.25 (34)	TP24.976x24.611x0.8	1200.450	2205.850	0.544	0.000	2205.850	0.000
L35	74.25 - 74 (35)	TP25.026x24.976x0.888	1206.942	2430.833	0.497	0.000	2430.833	0.000
L36	74 - 73.75 (36)	TP25.076x25.026x0.888	1213.433	2441.050	0.497	0.000	2441.050	0.000
L37	73.75 - 73.5 (37)	TP25.125x25.076x0.913	1219.933	2512.542	0.486	0.000	2512.542	0.000
L38	73.5 - 68.5 (38)	TP26.121x25.125x0.875	1351.108	2626.917	0.514	0.000	2626.917	0.000
L39	68.5 - 63.5 (39)	TP27.116x26.121x0.85	1484.508	2768.483	0.536	0.000	2768.483	0.000
L40	63.5 - 60.5 (40)	TP27.714x27.116x0.825	1565.600	2820.475	0.555	0.000	2820.475	0.000
L41	60.5 - 60.25 (41)	TP27.763x27.714x0.825	1572.392	2831.083	0.555	0.000	2831.083	0.000
L42	60.25 - 59.5 (42)	TP27.913x27.763x0.825	1592.808	2863.033	0.556	0.000	2863.033	0.000
L43	59.5 - 59.25 (43)	TP27.962x27.913x0.888	1599.625	3070.117	0.521	0.000	3070.117	0.000

<b>tnxTower</b>  <b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	<b>Job</b> 79982.012.01 - WATERBURY,CT (BU# 876317)	<b>Page</b> 88 of 95
	<b>Project</b>	<b>Date</b> 16:40:32 05/09/22
	<b>Client</b> Crown Castle	<b>Designed by</b> Jayaraj B

Section No.	Elevation ft	Size	$M_{ux}$	$\phi M_{ux}$	Ratio	$M_{uy}$	$\phi M_{uy}$	Ratio
			kip-ft	kip-ft	$\frac{M_{ux}}{\phi M_{ux}}$	kip-ft	kip-ft	$\frac{M_{uy}}{\phi M_{uy}}$
L44	59.25 - 54.25 (44)	TP28.958x27.962x0.85	1737.108	3176.850	0.547	0.000	3176.850	0.000
L45	54.25 - 45.802 (45)	TP30.64x28.958x0.838	1855.683	3328.592	0.557	0.000	3328.592	0.000
L46	45.802 - 44.802 (46)	TP30.333x29.304x0.838	2003.533	3452.967	0.580	0.000	3452.967	0.000
L47	44.802 - 43.583 (47)	TP30.574x30.333x0.838	2038.592	3510.467	0.581	0.000	3510.467	0.000
L48	43.583 - 43.333 (48)	TP30.624x30.574x0.85	2045.800	3570.392	0.573	0.000	3570.392	0.000
L49	43.333 - 43.166 (49)	TP30.657x30.624x0.85	2050.608	3578.433	0.573	0.000	3578.433	0.000
L50	43.166 - 42.916 (50)	TP30.706x30.657x0.938	2057.825	3925.383	0.524	0.000	3925.383	0.000
L51	42.916 - 39 (51)	TP31.481x30.706x0.913	2171.442	4035.258	0.538	0.000	4035.258	0.000
L52	39 - 38.75 (52)	TP31.531x31.481x0.95	2178.733	4199.433	0.519	0.000	4199.433	0.000
L53	38.75 - 37.166 (53)	TP31.844x31.531x0.938	2225.058	4236.008	0.525	0.000	4236.008	0.000
L54	37.166 - 36.916 (54)	TP31.894x31.844x0.888	2232.392	4042.658	0.552	0.000	4042.658	0.000
L55	36.916 - 34 (55)	TP32.471x31.894x0.888	2318.217	4196.683	0.552	0.000	4196.683	0.000
L56	34 - 33.75 (56)	TP32.52x32.471x0.875	2325.608	4155.650	0.560	0.000	4155.650	0.000
L57	33.75 - 29.75 (57)	TP33.312x32.52x0.863	2355.183	4153.258	0.567	0.000	4153.258	0.000
L58	29.75 - 29.5 (58)	TP33.361x33.312x0.863	2444.200	4311.608	0.567	0.000	4311.608	0.000
L59	29.5 - 24.5 (59)	TP34.351x33.361x0.85	2451.642	4267.175	0.575	0.000	4267.175	0.000
L60	24.5 - 23 (60)	TP34.648x34.351x0.838	2600.917	4472.633	0.582	0.000	4472.633	0.000
L61	23 - 22.75 (61)	TP34.697x34.648x0.963	2645.917	5174.958	0.511	0.000	5174.958	0.000
L62	22.75 - 21.583 (62)	TP34.928x34.697x0.963	2653.425	5190.383	0.511	0.000	5190.383	0.000
L63	21.583 - 21.333 (63)	TP34.978x34.928x0.85	2688.508	4693.900	0.573	0.000	4693.900	0.000
L64	21.333 - 16.333 (64)	TP35.967x34.978x0.838	2696.033	4643.575	0.581	0.000	4643.575	0.000
L65	16.333 - 12.917 (65)	TP36.644x35.967x0.825	2846.983	4851.733	0.587	0.000	4851.733	0.000
L66	12.917 - 12.667 (66)	TP36.693x36.644x0.913	2950.650	5536.417	0.533	0.000	5536.417	0.000
L67	12.667 - 12.5 (67)	TP36.726x36.693x0.913	2958.250	5551.950	0.533	0.000	5551.950	0.000
L68	12.5 - 12.25 (68)	TP36.776x36.726x0.763	2963.333	4706.633	0.630	0.000	4706.633	0.000
L69	12.25 - 12 (69)	TP36.825x36.776x0.763	2970.942	4719.725	0.629	0.000	4719.725	0.000
L70	12 - 11.75 (70)	TP36.874x36.825x0.663	2978.558	4146.442	0.718	0.000	4146.442	0.000
L71	11.75 - 8.5 (71)	TP37.518x36.874x0.65	2986.167	4083.675	0.731	0.000	4083.675	0.000
L72	8.5 - 8.25 (72)	TP37.567x37.518x0.925	3085.517	5887.708	0.524	0.000	5887.708	0.000
L73	8.25 - 7 (73)	TP37.815x37.567x0.913	3093.192	5830.017	0.531	0.000	5830.017	0.000
L74	7 - 6.75 (74)	TP37.864x37.815x0.813	3131.658	5305.175	0.590	0.000	5305.175	0.000
L75	6.75 - 1.75 (75)	TP38.854x37.864x0.788	3139.367	5166.292	0.608	0.000	5166.292	0.000
L76	1.75 - 0 (76)	TP39.2x38.854x0.788	3294.808	5448.700	0.605	0.000	5448.700	0.000

### Pole Shear Design Data

Section No.	Elevation ft	Size	Actual $V_u$ K	$\phi V_n$ K	Ratio $\frac{V_u}{\phi V_n}$	Actual $T_u$ kip-ft	$\phi T_n$ kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L1	144.25 - 139.25 (1)	TP12.75x12.75x0.375	6.639	181.071	0.037	0.530	197.003	0.003
L2	139.25 - 134.75 (2)	TP12.75x12.75x0.375	6.804	181.071	0.038	0.530	197.003	0.003
L3	134.75 - 134.25 (3)	TP13.48x13.48x0.375	6.821	191.752	0.036	0.530	220.931	0.002
L4	134.25 - 129.25 (4)	TP14.466x13.48x0.188	11.263	149.201	0.075	1.061	190.015	0.006
L5	129.25 - 124.25 (5)	TP15.452x14.466x0.188	11.432	161.736	0.071	1.059	217.158	0.005
L6	124.25 - 123.416 (6)	TP15.616x15.452x0.188	11.456	163.478	0.070	1.059	221.863	0.005
L7	123.416 - 123.166 (7)	TP15.665x15.616x0.538	11.460	459.502	0.025	1.059	611.454	0.002
L8	123.166 - 118.166 (8)	TP16.651x15.665x0.513	14.545	467.405	0.031	1.058	663.528	0.002
L9	118.166 - 113.166 (9)	TP17.637x16.651x0.488	15.136	472.451	0.032	1.017	712.699	0.001
L10	113.166 - 109.5 (10)	TP18.36x17.637x0.475	19.920	480.074	0.041	1.020	755.248	0.001
L11	109.5 - 109.25 (11)	TP18.409x18.36x0.588	19.929	591.677	0.034	0.582	927.533	0.001
L12	109.25 - 104.75 (12)	TP19.296x18.409x0.563	20.309	595.497	0.034	0.578	981.300	0.001
L13	104.75 - 104.5 (13)	TP19.346x19.296x0.775	20.322	813.314	0.025	0.577	1328.558	0.000
L14	104.5 - 102.416 (14)	TP19.756x19.346x0.763	20.523	818.440	0.025	0.574	1367.417	0.000
L15	102.416 - 102.166 (15)	TP19.806x19.756x0.563	20.538	611.691	0.034	0.573	1035.400	0.001
L16	102.166 - 98.75 (16)	TP20.479x19.806x0.55	23.753	619.420	0.038	0.568	1085.858	0.001
L17	98.75 - 98.5 (17)	TP20.528x20.479x0.838	23.761	931.933	0.025	0.567	1614.175	0.000
L18	98.5 - 97.5 (18)	TP20.726x20.528x0.838	23.866	941.264	0.025	0.566	1646.667	0.000
L19	97.5 - 97.25 (19)	TP20.775x20.726x0.75	23.883	848.721	0.028	0.565	1494.983	0.000
L20	97.25 - 92 (20)	TP21.81x20.775x0.738	24.055	849.049	0.028	0.565	1521.492	0.000
L21	92 - 90.552 (21)	TP21.73x20.735x0.8	24.637	946.229	0.026	0.568	1742.083	0.000
L22	90.552 - 89.25 (22)	TP21.989x21.73x0.775	24.752	929.108	0.027	0.568	1733.792	0.000
L23	89.25 - 89 (23)	TP22.039x21.989x1	24.761	1188.950	0.021	0.567	2200.350	0.000
L24	89 - 88.25 (24)	TP22.189x22.039x0.975	24.842	1168.830	0.021	0.566	2181.042	0.000
L25	88.25 - 88 (25)	TP22.238x22.189x0.763	24.860	925.385	0.027	0.565	1748.125	0.000
L26	88 - 87.833 (26)	TP22.272x22.238x0.763	24.875	926.817	0.027	0.565	1753.542	0.000
L27	87.833 - 87.583 (27)	TP22.321x22.272x0.675	24.895	825.698	0.030	0.565	1572.192	0.000
L28	87.583 - 82.583 (28)	TP23.317x22.321x0.65	25.303	832.602	0.030	0.562	1660.075	0.000
L29	82.583 - 77.583 (29)	TP24.312x23.317x0.625	25.681	836.622	0.031	0.562	1743.192	0.000
L30	77.583 - 77 (30)	TP24.428x24.312x0.625	25.715	840.722	0.031	0.562	1760.317	0.000
L31	77 - 76.75 (31)	TP24.478x24.428x0.825	25.729	1102.750	0.023	0.562	2294.383	0.000
L32	76.75 - 76.333 (32)	TP24.561x24.478x0.825	25.768	1106.620	0.023	0.562	2310.525	0.000
L33	76.333 - 76.083 (33)	TP24.611x24.561x0.825	25.788	1108.940	0.023	0.562	2320.225	0.000



Section No.	Elevation ft	Size	Actual $V_u$ K	$\phi V_n$ K	Ratio $V_u$ $\phi V_n$	Actual $T_u$ kip-ft	$\phi T_n$ kip-ft	Ratio $T_u$ $\phi T_n$
L34	76.083 - 74.25 (34)	TP24.976x24.611x0.8	25.977	1092.970	0.024	0.567	2324.292	0.000
L35	74.25 - 74 (35)	TP25.026x24.976x0.888	25.971	1210.620	0.021	0.568	2570.467	0.000
L36	74 - 73.75 (36)	TP25.076x25.026x0.888	25.993	1213.110	0.021	0.569	2581.075	0.000
L37	73.75 - 73.5 (37)	TP25.125x25.076x0.913	26.017	1248.560	0.021	0.571	2659.225	0.000
L38	73.5 - 68.5 (38)	TP26.121x25.125x0.875	26.482	1248.330	0.021	0.595	2772.167	0.000
L39	68.5 - 63.5 (39)	TP27.116x26.121x0.85	26.922	1261.680	0.021	0.620	2915.075	0.000
L40	63.5 - 60.5 (40)	TP27.714x27.116x0.825	27.186	1253.590	0.022	0.635	2964.992	0.000
L41	60.5 - 60.25 (41)	TP27.763x27.714x0.825	27.193	1255.910	0.022	0.636	2975.975	0.000
L42	60.25 - 59.5 (42)	TP27.913x27.763x0.825	27.269	1262.870	0.022	0.640	3009.058	0.000
L43	59.5 - 59.25 (43)	TP27.962x27.913x0.888	27.283	1357.910	0.020	0.641	3233.983	0.000
L44	59.25 - 54.25 (44)	TP28.958x27.962x0.85	27.742	1350.150	0.021	0.668	3338.192	0.000
L45	54.25 - 45.802 (45)	TP30.64x28.958x0.838	28.103	1370.930	0.020	0.691	3493.133	0.000
L46	45.802 - 44.802 (46)	TP30.333x29.304x0.838	28.742	1395.960	0.021	0.533	3621.825	0.000
L47	44.802 - 43.583 (47)	TP30.574x30.333x0.838	28.839	1407.380	0.020	0.533	3681.317	0.000
L48	43.583 - 43.333 (48)	TP30.624x30.574x0.85	28.836	1430.160	0.020	0.533	3745.558	0.000
L49	43.333 - 43.166 (49)	TP30.657x30.624x0.85	28.847	1431.750	0.020	0.533	3753.883	0.000
L50	43.166 - 42.916 (50)	TP30.706x30.657x0.938	28.868	1577.120	0.018	0.533	4129.758	0.000
L51	42.916 - 39 (51)	TP31.481x30.706x0.913	29.196	1576.320	0.019	0.534	4238.592	0.000
L52	39 - 38.75 (52)	TP31.531x31.481x0.95	29.193	1641.740	0.018	0.535	4416.233	0.000
L53	38.75 - 37.166 (53)	TP31.844x31.531x0.938	29.345	1637.410	0.018	0.536	4451.542	0.000
L54	37.166 - 36.916 (54)	TP31.894x31.844x0.888	29.335	1555.070	0.019	0.536	4241.300	0.000
L55	36.916 - 34 (55)	TP32.471x31.894x0.888	29.575	1584.020	0.019	0.539	4400.650	0.000
L56	34 - 33.75 (56)	TP32.52x32.471x0.875	29.565	1564.770	0.019	0.539	4355.717	0.000
L57	33.75 - 29.75 (57)	TP33.312x32.52x0.863	29.675	1562.320	0.019	0.539	4350.783	0.000
L58	29.75 - 29.5 (58)	TP33.361x33.312x0.863	29.760	1584.020	0.019	0.539	4514.475	0.000
L59	29.5 - 24.5 (59)	TP34.351x33.361x0.85	29.820	1571.170	0.019	0.539	4466.058	0.000
L60	24.5 - 23 (60)	TP34.648x34.351x0.838	30.061	1600.180	0.019	0.647	4675.825	0.000
L61	23 - 22.75 (61)	TP34.697x34.648x0.963	30.041	1834.900	0.016	0.647	5428.967	0.000
L62	22.75 - 21.583 (62)	TP34.928x34.697x0.963	30.116	1847.470	0.016	0.647	5444.933	0.000
L63	21.583 - 21.333 (63)	TP34.978x34.928x0.85	30.107	1639.310	0.018	0.647	4906.925	0.000
L64	21.333 - 16.333 (64)	TP35.967x34.978x0.838	30.161	1625.160	0.019	0.647	4852.367	0.000
L65	16.333 - 12.917 (65)	TP36.644x35.967x0.825	30.351	1648.900	0.018	0.647	5064.658	0.000
L66	12.917 - 12.667 (66)	TP36.693x36.644x0.913	30.429	1845.070	0.016	0.647	5791.033	0.000
L67	12.667 - 12.5 (67)	TP36.726x36.693x0.913	30.434	1846.770	0.016	0.647	5807.083	0.000
L68	12.5 - 12.25 (68)	TP36.776x36.726x0.763	30.446	1551.790	0.020	0.647	4902.275	0.000

Section No.	Elevation ft	Size	Actual $V_u$ K	$\phi V_n$ K	Ratio $V_u$ $\phi V_n$	Actual $T_u$ kip-ft	$\phi T_n$ kip-ft	Ratio $T_u$ $\phi T_n$
L69	12.25 - 12 (69)	TP36.825x36.776x0.763	30.455	1553.920	0.020	0.647	4915.775	0.000
L70	12 - 11.75 (70)	TP36.874x36.825x0.663	30.462	1355.720	0.022	0.647	4306.608	0.000
L71	11.75 - 8.5 (71)	TP37.518x36.874x0.65	30.565	1338.480	0.023	0.647	4239.850	0.000
L72	8.5 - 8.25 (72)	TP37.567x37.518x0.925	30.712	1915.390	0.016	0.617	6156.925	0.000
L73	8.25 - 7 (73)	TP37.815x37.567x0.913	30.860	1902.900	0.016	0.614	6094.317	0.000
L74	7 - 6.75 (74)	TP37.864x37.815x0.813	30.861	1701.230	0.018	0.603	5529.792	0.000
L75	6.75 - 1.75 (75)	TP38.854x37.864x0.788	30.974	1658.800	0.019	0.601	5381.242	0.000
L76	1.75 - 0 (76)	TP39.2x38.854x0.788	31.530	1709.450	0.018	0.579	5672.325	0.000

**Pole Interaction Design Data**

Section No.	Elevation ft	Ratio $P_u$ $\phi P_n$	Ratio $M_{ux}$ $\phi M_{ux}$	Ratio $M_{uy}$ $\phi M_{uy}$	Ratio $V_u$ $\phi V_n$	Ratio $T_u$ $\phi T_n$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	144.25 - 139.25 (1)	0.009	0.136	0.000	0.037	0.003	0.147	1.050	4.8.2 ✓
L2	139.25 - 134.75 (2)	0.009	0.289	0.000	0.038	0.003	0.300	1.050	4.8.2 ✓
L3	134.75 - 134.25 (3)	0.009	0.273	0.000	0.036	0.002	0.283	1.050	4.8.2 ✓
L4	134.25 - 129.25 (4)	0.018	0.547	0.000	0.075	0.006	0.572	1.050	4.8.2 ✓
L5	129.25 - 124.25 (5)	0.018	0.748	0.000	0.071	0.005	0.771	1.050	4.8.2 ✓
L6	124.25 - 123.416 (6)	0.017	0.777	0.000	0.070	0.005	0.800	1.050	4.8.2 ✓
L7	123.416 - 123.166 (7)	0.006	0.293	0.000	0.025	0.002	0.300	1.050	4.8.2 ✓
L8	123.166 - 118.166 (8)	0.008	0.370	0.000	0.031	0.002	0.379	1.050	4.8.2 ✓
L9	118.166 - 113.166 (9)	0.009	0.453	0.000	0.032	0.001	0.462	1.050	4.8.2 ✓
L10	113.166 - 109.5 (10)	0.011	0.507	0.000	0.041	0.001	0.520	1.050	4.8.2 ✓
L11	109.5 - 109.25 (11)	0.009	0.421	0.000	0.034	0.001	0.431	1.050	4.8.2 ✓
L12	109.25 - 104.75 (12)	0.009	0.494	0.000	0.034	0.001	0.504	1.050	4.8.2 ✓
L13	104.75 - 104.5 (13)	0.007	0.373	0.000	0.025	0.000	0.380	1.050	4.8.2 ✓
L14	104.5 - 102.416 (14)	0.007	0.395	0.000	0.025	0.000	0.402	1.050	4.8.2 ✓
L15	102.416 - 102.166 (15)	0.009	0.521	0.000	0.034	0.001	0.531	1.050	4.8.2 ✓
L16	102.166 - 98.75 (16)	0.011	0.570	0.000	0.038	0.001	0.582	1.050	4.8.2 ✓
L17	98.75 - 98.5 (17)	0.008	0.393	0.000	0.025	0.000	0.401	1.050	4.8.2 ✓
L18	98.5 - 97.5 (18)	0.008	0.400	0.000	0.025	0.000	0.408	1.050	4.8.2 ✓
L19	97.5 - 97.25 (19)	0.008	0.443	0.000	0.028	0.000	0.452	1.050	4.8.2 ✓

# tnxTower

**B+T Group**  
1717 S. Boulder, Suite 300  
Tulsa, OK 74119  
Phone: (918) 587-4630  
FAX: (918) 295-0265

**Job**  
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**Client**

Crown Castle

**Designed by**  
Jayaraj B

Section No.	Elevation ft	Ratio $P_u$ $\phi P_n$	Ratio $M_{ux}$ $\phi M_{nx}$	Ratio $M_{uy}$ $\phi M_{ny}$	Ratio $V_u$ $\phi V_n$	Ratio $T_u$ $\phi T_n$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L20	97.25 - 92 (20)	0.009	0.463	0.000	0.028	0.000	0.472	1.050	4.8.2 ✓
L21	92 - 90.552 (21)	0.008	0.479	0.000	0.026	0.000	0.488	1.050	4.8.2 ✓
L22	90.552 - 89.25 (22)	0.009	0.500	0.000	0.027	0.000	0.510	1.050	4.8.2 ✓
L23	89.25 - 89 (23)	0.007	0.401	0.000	0.021	0.000	0.409	1.050	4.8.2 ✓
L24	89 - 88.25 (24)	0.007	0.413	0.000	0.021	0.000	0.421	1.050	4.8.2 ✓
L25	88.25 - 88 (25)	0.009	0.514	0.000	0.027	0.000	0.524	1.050	4.8.2 ✓
L26	88 - 87.833 (26)	0.009	0.515	0.000	0.027	0.000	0.525	1.050	4.8.2 ✓
L27	87.833 - 87.583 (27)	0.010	0.576	0.000	0.030	0.000	0.587	1.050	4.8.2 ✓
L28	87.583 - 82.583 (28)	0.010	0.624	0.000	0.030	0.000	0.635	1.050	4.8.2 ✓
L29	82.583 - 77.583 (29)	0.011	0.669	0.000	0.031	0.000	0.681	1.050	4.8.2 ✓
L30	77.583 - 77 (30)	0.011	0.672	0.000	0.031	0.000	0.683	1.050	4.8.2 ✓
L31	77 - 76.75 (31)	0.008	0.523	0.000	0.023	0.000	0.531	1.050	4.8.2 ✓
L32	76.75 - 76.333 (32)	0.008	0.524	0.000	0.023	0.000	0.532	1.050	4.8.2 ✓
L33	76.333 - 76.083 (33)	0.008	0.524	0.000	0.023	0.000	0.533	1.050	4.8.2 ✓
L34	76.083 - 74.25 (34)	0.008	0.544	0.000	0.024	0.000	0.553	1.050	4.8.2 ✓
L35	74.25 - 74 (35)	0.008	0.497	0.000	0.021	0.000	0.505	1.050	4.8.2 ✓
L36	74 - 73.75 (36)	0.008	0.497	0.000	0.021	0.000	0.505	1.050	4.8.2 ✓
L37	73.75 - 73.5 (37)	0.007	0.486	0.000	0.021	0.000	0.493	1.050	4.8.2 ✓
L38	73.5 - 68.5 (38)	0.008	0.514	0.000	0.021	0.000	0.523	1.050	4.8.2 ✓
L39	68.5 - 63.5 (39)	0.008	0.536	0.000	0.021	0.000	0.545	1.050	4.8.2 ✓
L40	63.5 - 60.5 (40)	0.008	0.555	0.000	0.022	0.000	0.564	1.050	4.8.2 ✓
L41	60.5 - 60.25 (41)	0.008	0.555	0.000	0.022	0.000	0.564	1.050	4.8.2 ✓
L42	60.25 - 59.5 (42)	0.008	0.556	0.000	0.022	0.000	0.565	1.050	4.8.2 ✓
L43	59.5 - 59.25 (43)	0.008	0.521	0.000	0.020	0.000	0.529	1.050	4.8.2 ✓
L44	59.25 - 54.25 (44)	0.008	0.547	0.000	0.021	0.000	0.555	1.050	4.8.2 ✓
L45	54.25 - 45.802 (45)	0.008	0.557	0.000	0.020	0.000	0.566	1.050	4.8.2 ✓

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**B+T Group**  
1717 S. Boulder, Suite 300  
Tulsa, OK 74119  
Phone: (918) 587-4630  
FAX: (918) 295-0265

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**Date**  
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**Client**  
Crown Castle  
**Designed by**  
Jayaraj B

Section No.	Elevation ft	Ratio $P_u$	Ratio $M_{ux}$	Ratio $M_{uy}$	Ratio $V_u$	Ratio $T_u$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L46	45.802 - 44.802 (46)	0.009	0.580	0.000	0.021	0.000	0.590	1.050	4.8.2 ✓
L47	44.802 - 43.583 (47)	0.009	0.581	0.000	0.020	0.000	0.590	1.050	4.8.2 ✓
L48	43.583 - 43.333 (48)	0.009	0.573	0.000	0.020	0.000	0.582	1.050	4.8.2 ✓
L49	43.333 - 43.166 (49)	0.009	0.573	0.000	0.020	0.000	0.582	1.050	4.8.2 ✓
L50	43.166 - 42.916 (50)	0.008	0.524	0.000	0.018	0.000	0.533	1.050	4.8.2 ✓
L51	42.916 - 39 (51)	0.008	0.538	0.000	0.019	0.000	0.547	1.050	4.8.2 ✓
L52	39 - 38.75 (52)	0.008	0.519	0.000	0.018	0.000	0.527	1.050	4.8.2 ✓
L53	38.75 - 37.166 (53)	0.008	0.525	0.000	0.018	0.000	0.534	1.050	4.8.2 ✓
L54	37.166 - 36.916 (54)	0.009	0.552	0.000	0.019	0.000	0.561	1.050	4.8.2 ✓
L55	36.916 - 34 (55)	0.009	0.552	0.000	0.019	0.000	0.561	1.050	4.8.2 ✓
L56	34 - 33.75 (56)	0.009	0.560	0.000	0.019	0.000	0.569	1.050	4.8.2 ✓
L57	33.75 - 29.75 (57)	0.009	0.567	0.000	0.019	0.000	0.576	1.050	4.8.2 ✓
L58	29.75 - 29.5 (58)	0.009	0.567	0.000	0.019	0.000	0.576	1.050	4.8.2 ✓
L59	29.5 - 24.5 (59)	0.009	0.575	0.000	0.019	0.000	0.584	1.050	4.8.2 ✓
L60	24.5 - 23 (60)	0.009	0.582	0.000	0.019	0.000	0.591	1.050	4.8.2 ✓
L61	23 - 22.75 (61)	0.008	0.511	0.000	0.016	0.000	0.520	1.050	4.8.2 ✓
L62	22.75 - 21.583 (62)	0.008	0.511	0.000	0.016	0.000	0.520	1.050	4.8.2 ✓
L63	21.583 - 21.333 (63)	0.009	0.573	0.000	0.018	0.000	0.582	1.050	4.8.2 ✓
L64	21.333 - 16.333 (64)	0.009	0.581	0.000	0.019	0.000	0.590	1.050	4.8.2 ✓
L65	16.333 - 12.917 (65)	0.010	0.587	0.000	0.018	0.000	0.597	1.050	4.8.2 ✓
L66	12.917 - 12.667 (66)	0.009	0.533	0.000	0.016	0.000	0.542	1.050	4.8.2 ✓
L67	12.667 - 12.5 (67)	0.009	0.533	0.000	0.016	0.000	0.542	1.050	4.8.2 ✓
L68	12.5 - 12.25 (68)	0.011	0.630	0.000	0.020	0.000	0.641	1.050	4.8.2 ✓
L69	12.25 - 12 (69)	0.011	0.629	0.000	0.020	0.000	0.640	1.050	4.8.2 ✓
L70	12 - 11.75 (70)	0.012	0.718	0.000	0.022	0.000	0.731	1.050	4.8.2 ✓
L71	11.75 - 8.5 (71)	0.012	0.731	0.000	0.023	0.000	0.744	1.050	4.8.2 ✓

<b>tnxTower</b>  <b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	<b>Job</b> 79982.012.01 - WATERBURY,CT (BU# 876317)	<b>Page</b> 94 of 95
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	<b>Client</b> Crown Castle	<b>Designed by</b> Jayaraj B

Section No.	Elevation ft	Ratio $P_u$	Ratio $M_{ux}$	Ratio $M_{uy}$	Ratio $V_u$	Ratio $T_u$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
		$\phi P_n$	$\phi M_{nx}$	$\phi M_{ny}$	$\phi V_n$	$\phi T_n$			
L72	8.5 - 8.25 (72)	0.009	0.524	0.000	0.016	0.000	0.533	1.050	4.8.2 ✓
L73	8.25 - 7 (73)	0.009	0.531	0.000	0.016	0.000	0.540	1.050	4.8.2 ✓
L74	7 - 6.75 (74)	0.010	0.590	0.000	0.018	0.000	0.601	1.050	4.8.2 ✓
L75	6.75 - 1.75 (75)	0.010	0.608	0.000	0.019	0.000	0.618	1.050	4.8.2 ✓
L76	1.75 - 0 (76)	0.011	0.605	0.000	0.018	0.000	0.616	1.050	4.8.2 ✓

### Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	$\phi P_{allow}$ K	% Capacity	Pass Fail
L1	144.25 - 139.25	Pole	TP12.75x12.75x0.375	1	-5.140	633.747	**	**
L2	139.25 - 134.75	Pole	TP12.75x12.75x0.375	2	-5.424	633.747	**	**
L3	134.75 - 134.25	Pole	TP13.48x13.48x0.375	3	-5.461	671.132	**	**
L4	134.25 - 129.25	Pole	TP14.466x13.48x0.188	4	-9.099	529.516	**	**
L5	129.25 - 124.25	Pole	TP15.452x14.466x0.188	5	-9.446	566.074	**	**
L6	124.25 - 123.416	Pole	TP15.616x15.452x0.188	6	-9.511	572.172	**	**
L7	123.416 - 123.166	Pole	TP15.665x15.616x0.538	7	-9.550	1608.253	**	**
L8	123.166 - 118.166	Pole	TP16.651x15.665x0.513	8	-12.985	1635.921	**	**
L9	118.166 - 113.166	Pole	TP17.637x16.651x0.488	9	-13.499	1653.582	**	**
L10	113.166 - 109.5	Pole	TP18.36x17.637x0.475	10	-17.304	1680.262	**	**
L11	109.5 - 109.25	Pole	TP18.409x18.36x0.588	11	-17.362	2070.873	**	**
L12	109.25 - 104.75	Pole	TP19.296x18.409x0.563	12	-18.098	2084.239	**	**
L13	104.75 - 104.5	Pole	TP19.346x19.296x0.775	13	-18.166	2846.602	**	**
L14	104.5 - 102.416	Pole	TP19.756x19.346x0.763	14	-18.599	2864.536	**	**
L15	102.416 - 102.166	Pole	TP19.806x19.756x0.563	15	-18.658	2140.918	**	**
L16	102.166 - 98.75	Pole	TP20.479x19.806x0.55	16	-23.276	2167.966	**	**
L17	98.75 - 98.5	Pole	TP20.528x20.479x0.838	17	-23.360	3261.762	**	**
L18	98.5 - 97.5	Pole	TP20.726x20.528x0.838	18	-23.611	3294.427	**	**
L19	97.5 - 97.25	Pole	TP20.775x20.726x0.75	19	-23.684	2970.523	**	**
L20	97.25 - 92	Pole	TP21.81x20.775x0.738	20	-24.092	2971.668	**	**
L21	92 - 90.552	Pole	TP21.73x20.735x0.8	21	-26.131	3311.805	**	**
L22	90.552 - 89.25	Pole	TP21.989x21.73x0.775	22	-26.493	3251.881	**	**
L23	89.25 - 89	Pole	TP22.039x21.989x1	23	-26.589	4161.307	**	**
L24	89 - 88.25	Pole	TP22.189x22.039x0.975	24	-26.816	4090.894	**	**
L25	88.25 - 88	Pole	TP22.238x22.189x0.763	25	-26.890	3238.851	**	**
L26	88 - 87.833	Pole	TP22.272x22.238x0.763	26	-26.936	3243.859	**	**
L27	87.833 - 87.583	Pole	TP22.321x22.272x0.675	27	-26.997	2889.946	**	**
L28	87.583 - 82.583	Pole	TP23.317x22.321x0.65	28	-28.240	2914.107	**	**
L29	82.583 - 77.583	Pole	TP24.312x23.317x0.625	29	-29.529	2928.177	**	**
L30	77.583 - 77	Pole	TP24.428x24.312x0.625	30	-29.690	2942.530	**	**
L31	77 - 76.75	Pole	TP24.478x24.428x0.825	31	-29.774	3859.621	**	**
L32	76.75 - 76.333	Pole	TP24.561x24.478x0.825	32	-29.898	3873.166	**	**
L33	76.333 - 76.083	Pole	TP24.611x24.561x0.825	33	-29.973	3881.293	**	**
L34	76.083 - 74.25	Pole	TP24.976x24.611x0.8	34	-30.480	3825.381	**	**
L35	74.25 - 74	Pole	TP25.026x24.976x0.888	35	-30.582	4237.159	**	**
L36	74 - 73.75	Pole	TP25.076x25.026x0.888	36	-30.658	4245.895	**	**
L37	73.75 - 73.5	Pole	TP25.125x25.076x0.913	37	-30.737	4369.974	**	**

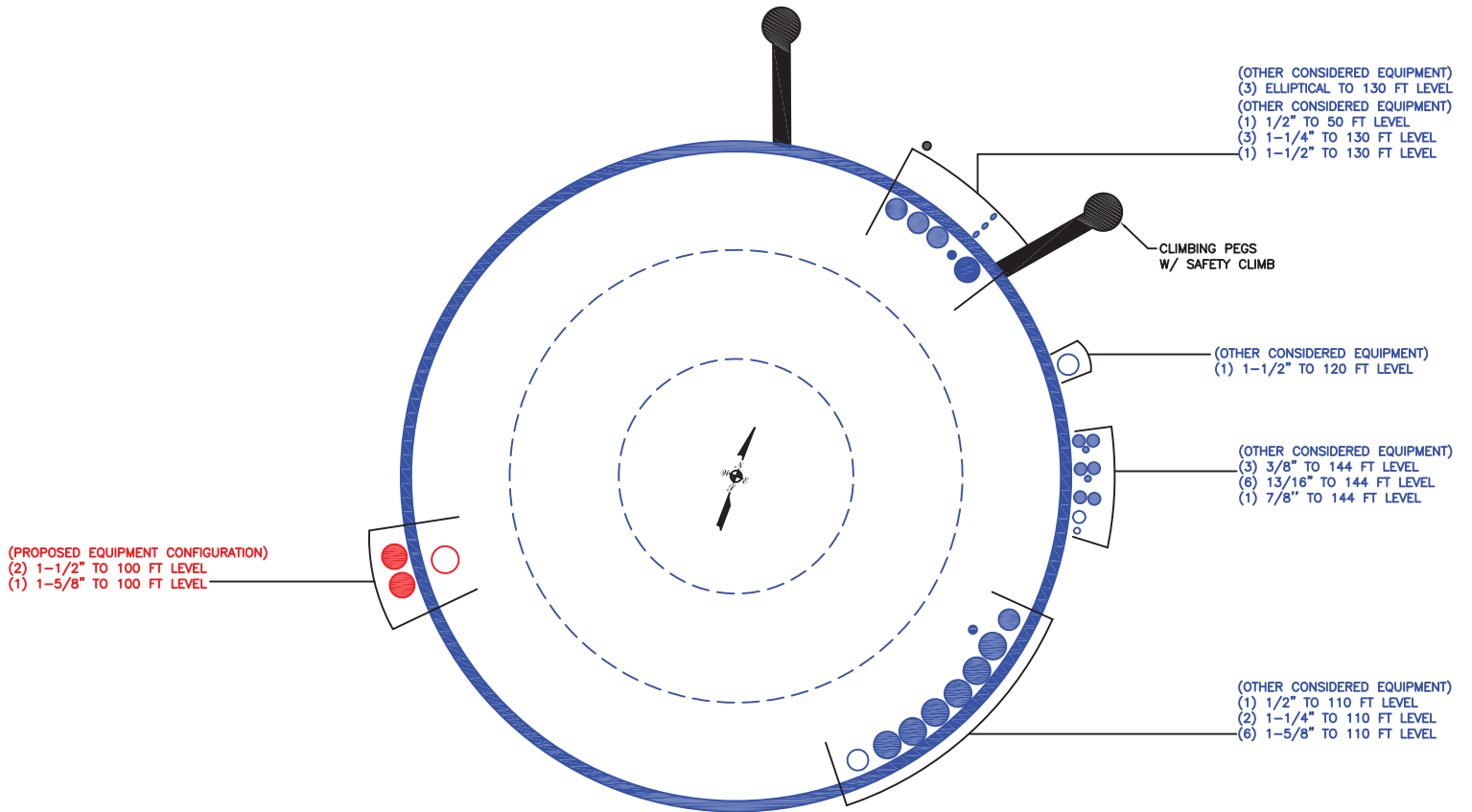
<b>tnxTower</b>  <b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	<b>Job</b>	79982.012.01 - WATERBURY,CT (BU# 876317)	<b>Page</b>	95 of 95
	<b>Project</b>		<b>Date</b>	16:40:32 05/09/22
	<b>Client</b>	Crown Castle		<b>Designed by</b>

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	$\phi P_{allow}$ K	% Capacity	Pass Fail
L38	73.5 - 68.5	Pole	TP26.121x25.125x0.875	38	-32.297	4369.165	**	**
L39	68.5 - 63.5	Pole	TP27.116x26.121x0.85	39	-33.893	4415.901	**	**
L40	63.5 - 60.5	Pole	TP27.714x27.116x0.825	40	-34.865	4387.561	**	**
L41	60.5 - 60.25	Pole	TP27.763x27.714x0.825	41	-34.959	4395.688	**	**
L42	60.25 - 59.5	Pole	TP27.913x27.763x0.825	42	-35.197	4420.048	**	**
L43	59.5 - 59.25	Pole	TP27.962x27.913x0.888	43	-35.291	4752.667	**	**
L44	59.25 - 54.25	Pole	TP28.958x27.962x0.85	44	-36.994	4725.525	**	**
L45	54.25 - 45.802	Pole	TP30.64x28.958x0.838	45	-38.471	4798.269	**	**
L46	45.802 - 44.802	Pole	TP30.333x29.304x0.838	46	-41.597	4885.860	**	**
L47	44.802 - 43.583	Pole	TP30.574x30.333x0.838	47	-42.034	4925.823	**	**
L48	43.583 - 43.333	Pole	TP30.624x30.574x0.85	48	-42.145	5005.560	**	**
L49	43.333 - 43.166	Pole	TP30.657x30.624x0.85	49	-42.210	5011.114	**	**
L50	43.166 - 42.916	Pole	TP30.706x30.657x0.938	50	-42.308	5519.913	**	**
L51	42.916 - 39	Pole	TP31.481x30.706x0.913	51	-43.846	5517.109	**	**
L52	39 - 38.75	Pole	TP31.531x31.481x0.95	52	-43.966	5746.093	**	**
L53	38.75 - 37.166	Pole	TP31.844x31.531x0.938	53	-44.607	5730.931	**	**
L54	37.166 - 36.916	Pole	TP31.894x31.844x0.888	54	-44.727	5442.748	**	**
L55	36.916 - 34	Pole	TP32.471x31.894x0.888	55	-45.896	5544.052	**	**
L56	34 - 33.75	Pole	TP32.52x32.471x0.875	56	-46.013	5476.695	**	**
L57	33.75 - 29.75	Pole	TP33.312x32.52x0.863	57	-46.423	5434.348	**	**
L58	29.75 - 29.5	Pole	TP33.361x33.312x0.863	58	-47.599	5535.642	**	**
L59	29.5 - 24.5	Pole	TP34.351x33.361x0.85	59	-47.711	5465.838	**	**
L60	24.5 - 23	Pole	TP34.648x34.351x0.838	60	-49.728	5551.444	**	**
L61	23 - 22.75	Pole	TP34.697x34.648x0.963	61	-50.319	6412.738	**	**
L62	22.75 - 21.583	Pole	TP34.928x34.697x0.963	62	-50.441	6422.157	**	**
L63	21.583 - 21.333	Pole	TP34.978x34.928x0.85	63	-50.945	5729.262	**	**
L64	21.333 - 16.333	Pole	TP35.967x34.978x0.838	64	-51.063	5655.279	**	**
L65	16.333 - 12.917	Pole	TP36.644x35.967x0.825	65	-53.199	5734.386	**	**
L66	12.917 - 12.667	Pole	TP36.693x36.644x0.913	66	-54.660	6448.806	**	**
L67	12.667 - 12.5	Pole	TP36.726x36.693x0.913	67	-54.775	6457.731	**	**
L68	12.5 - 12.25	Pole	TP36.776x36.726x0.763	68	-54.855	5423.796	**	**
L69	12.25 - 12	Pole	TP36.825x36.776x0.763	69	-54.961	5431.261	**	**
L70	12 - 11.75	Pole	TP36.874x36.825x0.663	70	-55.067	4738.545	**	**
L71	11.75 - 8.5	Pole	TP37.518x36.874x0.65	71	-55.183	4657.107	**	**
L72	8.5 - 8.25	Pole	TP37.567x37.518x0.925	72	-56.479	6694.800	**	**
L73	8.25 - 7	Pole	TP37.815x37.567x0.913	73	-56.612	6615.514	**	**
L74	7 - 6.75	Pole	TP37.864x37.815x0.813	74	-57.203	5946.349	**	**
L75	6.75 - 1.75	Pole	TP38.854x37.864x0.788	75	-57.323	5774.989	**	**
L76	1.75 - 0	Pole	TP39.2x38.854x0.788	76	-59.524	5929.119	**	**

Summary  
Pole (L6)      \*\*      \*\*  
**RATING =**      \*\*      \*\*

\*\* Above stress ratios for reinforced sections are approximate. More exact calculations are presented in Appendix C.

**APPENDIX B**  
**BASE LEVEL DRAWING**



BUSINESS UNIT: 876317



**APPENDIX C**  
**ADDITIONAL CALCULATIONS**

**Pole Geometry**

	Pole Height Above Base (ft)	Section Length (ft)	Lap Splice Length (ft)	Number of Sides	Top Diameter (in)	Bottom Diameter (in)	Wall Thickness (in)	Bend Radius (in)	Pole Material
1	144.25	9.5	0	0	12.75	12.75	0.375		A500-46
2	134.75	0.5	0	0	13.48	13.48	0.375		A500-46
3	134.25	42.25	3.552	12	13.48	21.81	0.1875	Auto	A572-65
4	95.552	49.75	4.198	12	20.73	30.64	0.25	Auto	A572-65
5	50	50	0	12	29.30	39.2	0.3125	Auto	A572-65

**Reinforcement Configuration**

	Bottom Effective Elevation (ft)	Top Effective Elevation (ft)	Type	Model	Number	1	2	3	4	5	6	7	8	9	10	11	12
1	0	29.75	plate	PL 6.875x1.25 BW	2				E1								E1
2	0	12.917	plate	PL 6.875x1.25 (14)	2							E1		E1			
3	12.917	29.75	plate	PL 6.875x1.25	1								E1				
4	29.75	59.5	plate	PL 6.625x1.25	3				E1								E1
5	59.5	89.25	plate	PL 5.5x1.25	3				E1				E1				E1
6	89.25	98.75	plate	PL 3.625x1.25	3				E1				E1				E1
7	12.5	39	plate	PL 4x1	1	E2											
8	12.5	34	plate	PL 4x1	2					E2						E2	
9	34	60.5	plate	PL 4x1	3		E2				E2					E2	
10	60.5	77	plate	PL 4x1	3		E2			E2						E2	
11	88.25	104.75	plate	PL 4x1	3		E2			E2						E2	
12	0	8.5	plate	TS 1x7	3			3								3	
13	7	23	plate	CCI-SFP-060100	2					E3							E3
14	12	23	plate	CCI-SFP-060100	1		E3										
15	21.583	37.166	plate	CCI-SFP-045100	1										E3		
16	23	37.166	plate	CCI-SFP-045100	1					E3							
17	23	43.583	plate	CCI-SFP-045100	1		E3										
18	37.166	43.166	plate	CCI-SFP-060100	2					E3							
19	43.166	73.75	plate	CCI-SFP-045100	1										E3		
20	46.75	73.75	plate	CCI-SFP-045100	1	E3											
21	43.166	74.25	plate	CCI-SFP-040075	1					E3							
22	73.75	102.416	plate	CCI-SFP-040075	2	E3									E3		
23	76.333	89.25	plate	CCI-SFP-040075	1			E3									
24	87.833	102.416	plate	CCI-AFP-050125	1							E3					
25	102.416	123.416	plate	CCI-AFP-045100	2	E3									E3		
26	102.416	123.416	plate	CCI-AFP-045100	1					E3							
27	97.5	109.5	plate	CCI-AFP-040075	1			E3									
28	102.416	109.5	plate	CCI-AFP-040075	1											E3	

**Reinforcement Details**

	B (in)	H (in)	Gross Area (in <sup>2</sup> )	Pole Face to Centroid (in)	Bottom Termination Type	Bottom Termination Length (in)	Top Termination Type	Top Termination Length (in)	Lu (in)	Net Area (in <sup>2</sup> )	Bolt Hole Size (in)	Reinforcement Material
1	6.875	1.25	8.59375	0.625	Welded	n/a	PC 8.8 - M20 (100)	36.000	15.000	6.953	1.2500	A572-65
2	6.875	1.25	8.59375	0.625	Welded	n/a	PC 8.8 - M20 (100)	42.000	15.000	6.953	1.2500	A572-65
3	6.875	1.25	8.59375	0.625	PC 8.8 - M20 (100)	42	PC 8.8 - M20 (100)	36.000	15.000	6.953	1.2500	A572-65
4	6.625	1.25	8.28125	0.625	None	n/a	PC 8.8 - M20 (100)	30.000	18.000	6.641	1.2500	A572-65
5	5.5	1.25	6.875	0.625	None	n/a	PC 8.8 - M20 (100)	18.000	18.000	5.234	1.2500	A572-65
6	3.625	1.25	4.53125	0.625	None	n/a	PC 8.8 - M20 (100)	15.000	24.000	2.891	1.2500	A572-65
7	4	1	4	0.5	PC 8.8 - M20 (100)	21	PC 8.8 - M20 (100)	21.000	20.000	2.750	1.1875	A572-65
8	4	1	4	0.5	PC 8.8 - M20 (100)	21	PC 8.8 - M20 (100)	21.000	20.000	2.750	1.1875	A572-65
9	4	1	4	0.5	PC 8.8 - M20 (100)	21	PC 8.8 - M20 (100)	21.000	20.000	2.750	1.1875	A572-65
10	4	1	4	0.5	PC 8.8 - M20 (100)	21	PC 8.8 - M20 (100)	21.000	20.000	2.750	1.1875	A572-65
11	4	1	4	0.5	PC 8.8 - M20 (100)	21	PC 8.8 - M20 (100)	21.000	20.000	2.750	1.1875	A572-65
12	1	7	7	3.5	Welded	n/a	Welded	0.000	0.750	7.000	0.0000	A572-65
13	6	1	6	0.5	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	16.000	4.750	1.1875	A572-65
14	6	1	6	0.5	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	16.000	4.750	1.1875	A572-65
15	4.5	1	4.5	0.5	PC 8.8 - M20 (100)	18	PC 8.8 - M20 (100)	18.000	20.000	3.250	1.1875	A572-65
16	4.5	1	4.5	0.5	PC 8.8 - M20 (100)	18	PC 8.8 - M20 (100)	18.000	20.000	3.250	1.1875	A572-65
17	4.5	1	4.5	0.5	PC 8.8 - M20 (100)	18	PC 8.8 - M20 (100)	18.000	20.000	3.250	1.1875	A572-65
18	6	1	6	0.5	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	16.000	4.750	1.1875	A572-65
19	4.5	1	4.5	0.5	PC 8.8 - M20 (100)	18	PC 8.8 - M20 (100)	18.000	20.000	3.250	1.1875	A572-65
20	4.5	1	4.5	0.5	PC 8.8 - M20 (100)	18	PC 8.8 - M20 (100)	18.000	20.000	3.250	1.1875	A572-65
21	4	0.75	3	0.375	PC 8.8 - M20 (100)	12	PC 8.8 - M20 (100)	12.000	16.000	2.063	1.1875	A572-65
22	4	0.75	3	0.375	PC 8.8 - M20 (100)	12	PC 8.8 - M20 (100)	12.000	16.000	2.063	1.1875	A572-65
23	4	0.75	3	0.375	PC 8.8 - M20 (100)	12	PC 8.8 - M20 (100)	12.000	16.000	2.063	1.1875	A572-65
24	5	1.25	6.25	0.625	PC 8.8 - M20 (100)	30	PC 8.8 - M20 (100)	30.000	23.000	4.688	1.1875	A572-65
25	4.5	1	4.5	0.5	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	20.000	3.250	1.1875	A572-65
26	4.5	1	4.5	0.5	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	20.000	3.250	1.1875	A572-65
27	4	0.75	3	0.375	PC 8.8 - M20 (100)	18	PC 8.8 - M20 (100)	18.000	16.000	2.063	1.1875	A572-65
28	4	0.75	3	0.375	PC 8.8 - M20 (100)	18	PC 8.8 - M20 (100)	18.000	16.000	2.063	1.1875	A572-65

**Connection Details for Custom Reinforcements**

Reinforcement	End	# Bolts	N or X	Bolt Spacing (in)	Edge Dist (in)	Weld Grade (ksi)	Transverse (Horiz.) Weld Type	Horiz. Weld Length (in)	Horiz. Groove Depth (in)	Horiz. Groove Angle (deg)	Horiz. Fillet Size (in)	Vertical Weld Length (in)	Vertical Fillet Size (in)	Rev H Connection Capacity (kip)
PL 6.875x1.25 BW	Top	12	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	-	-	-	-	70	None	-	-	-	-	-	-	-
PL 6.875x1.25 (14)	Top	14	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	-	-	-	-	70	None	-	-	-	-	-	-	-
PL 6.875x1.25	Top	12	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	14	N	3	3	0	-	-	-	-	-	-	-	-
PL 6.625x1.25	Top	10	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	-	-	-	-	70	None	-	-	-	-	-	-	-
PL 5.5x1.25	Top	6	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	-	-	-	-	70	None	-	-	-	-	-	-	-
PL 3.625x1.25	Top	5	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	-	-	-	-	70	None	-	-	-	-	-	-	-
PL 4x1	Top	7	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	7	N	3	3	0	-	-	-	-	-	-	-	-
TS 1x7	Top	0	-	0	0	80	None	-	-	-	-	125.25	0.313	-
	Bottom	-	-	-	-	80	CJP Groove	12.5	0.5	45	0.3125	-	-	-

# TNX Geometry Input

Increment (ft):  [Export to TNX](#)

	Section Height (ft)	Section Length (ft)	Lap Splice Length (ft)	Number of Sides	Top Diameter (in)	Bottom Diameter (in)	Wall Thickness (in)	Tapered Pole Grade	Weight Multiplier
1	144.25 - 139.25	5		0	12.750	12.750	0.375	A500-46	1.000
2	139.25 - 134.75	4.5	0	0	12.750	12.750	0.375	A500-46	1.000
3	134.75 - 134.25	0.5	0	0	13.480	13.480	0.375	A500-46	1.000
4	134.25 - 129.25	5		12	13.480	14.466	0.1875	A572-65	1.000
5	129.25 - 124.25	5		12	14.466	15.452	0.1875	A572-65	1.000
6	124.25 - 123.416	0.834		12	15.452	15.616	0.1875	A572-65	1.000
7	123.416 - 123.166	0.25		12	15.616	15.665	0.5375	A572-65	0.873
8	123.166 - 118.166	5		12	15.665	16.651	0.5125	A572-65	0.881
9	118.166 - 113.166	5		12	16.651	17.637	0.4875	A572-65	0.894
10	113.166 - 109.5	3.666		12	17.637	18.360	0.475	A572-65	0.895
11	109.5 - 109.25	0.25		12	18.360	18.409	0.5875	A572-65	0.906
12	109.25 - 104.75	4.5		12	18.409	19.296	0.5625	A572-65	0.916
13	104.75 - 104.5	0.25		12	19.296	19.346	0.775	A572-65	0.930
14	104.5 - 102.416	2.084		12	19.346	19.756	0.7625	A572-65	0.930
15	102.416 - 102.166	0.25		12	19.756	19.806	0.5625	A572-65	1.123
16	102.166 - 98.75	3.416		12	19.806	20.479	0.55	A572-65	1.120
17	98.75 - 98.5	0.25		12	20.479	20.528	0.8375	A572-65	1.002
18	98.5 - 97.5	1		12	20.528	20.726	0.8375	A572-65	0.994
19	97.5 - 97.25	0.25		12	20.726	20.775	0.75	A572-65	1.041
20	97.25 - 95.552	5.25	3.552	12	20.775	21.810	0.7375	A572-65	1.044
21	95.552 - 90.552	5		12	20.735	21.730	0.8	A572-65	1.024
22	90.552 - 89.25	1.302		12	21.730	21.989	0.775	A572-65	1.046
23	89.25 - 89	0.25		12	21.989	22.039	1	A572-65	0.967
24	89 - 88.25	0.75		12	22.039	22.189	0.975	A572-65	0.985
25	88.25 - 88	0.25		12	22.189	22.238	0.7625	A572-65	1.017
26	88 - 87.833	0.167		12	22.238	22.272	0.7625	A572-65	1.016
27	87.833 - 87.583	0.25		12	22.272	22.321	0.675	A572-65	1.008
28	87.583 - 82.583	5		12	22.321	23.317	0.65	A572-65	1.017
29	82.583 - 77.583	5		12	23.317	24.312	0.625	A572-65	1.029
30	77.583 - 77	0.583		12	24.312	24.428	0.625	A572-65	1.026
31	77 - 76.75	0.25		12	24.428	24.478	0.825	A572-65	0.974
32	76.75 - 76.333	0.417		12	24.478	24.561	0.825	A572-65	0.971
33	76.333 - 76.083	0.25		12	24.561	24.611	0.825	A572-65	0.923
34	76.083 - 74.25	1.833		12	24.611	24.976	0.8	A572-65	0.941
35	74.25 - 74	0.25		12	24.976	25.026	0.8875	A572-65	0.893
36	74 - 73.75	0.25		12	25.026	25.076	0.8875	A572-65	0.892
37	73.75 - 73.5	0.25		12	25.076	25.125	0.9125	A572-65	0.910
38	73.5 - 68.5	5		12	25.125	26.121	0.875	A572-65	0.921
39	68.5 - 63.5	5		12	26.121	27.116	0.85	A572-65	0.922
40	63.5 - 60.5	3		12	27.116	27.714	0.825	A572-65	0.935
41	60.5 - 60.25	0.25		12	27.714	27.763	0.825	A572-65	0.934
42	60.25 - 59.5	0.75		12	27.763	27.913	0.825	A572-65	0.931
43	59.5 - 59.25	0.25		12	27.913	27.962	0.8875	A572-65	0.920
44	59.25 - 54.25	5		12	27.962	28.958	0.85	A572-65	0.936
45	54.25 - 50	8.448	4.198	12	28.958	30.640	0.8375	A572-65	0.931
46	50 - 44.802	5.198		12	29.304	30.333	0.8375	A572-65	0.938
47	44.802 - 43.583	1.219		12	30.333	30.574	0.8375	A572-65	0.933
48	43.583 - 43.333	0.25		12	30.574	30.624	0.85	A572-65	0.975
49	43.333 - 43.166	0.167		12	30.624	30.657	0.85	A572-65	0.974
50	43.166 - 42.916	0.25		12	30.657	30.706	0.9375	A572-65	0.935
51	42.916 - 39	3.916		12	30.706	31.481	0.9125	A572-65	0.944
52	39 - 38.75	0.25		12	31.481	31.531	0.95	A572-65	0.950
53	38.75 - 37.166	1.584		12	31.531	31.844	0.9375	A572-65	0.956
54	37.166 - 36.916	0.25		12	31.844	31.894	0.8875	A572-65	0.973
55	36.916 - 34	2.916		12	31.894	32.471	0.8875	A572-65	0.961
56	34 - 33.75	0.25		12	32.471	32.520	0.875	A572-65	0.929
57	33.75 - 29.75	4		12	32.520	33.312	0.8625	A572-65	0.928
58	29.75 - 29.5	0.25		12	33.312	33.361	0.8625	A572-65	0.937
59	29.5 - 24.5	5		12	33.361	34.351	0.85	A572-65	0.934
60	24.5 - 23	1.5		12	34.351	34.648	0.8375	A572-65	0.942
61	23 - 22.75	0.25		12	34.648	34.697	0.9625	A572-65	0.908
62	22.75 - 21.583	1.167		12	34.697	34.928	0.9625	A572-65	0.904
63	21.583 - 21.333	0.25		12	34.928	34.978	0.85	A572-65	0.971
64	21.333 - 16.333	5		12	34.978	35.967	0.8375	A572-65	0.968
65	16.333 - 12.917	3.416		12	35.967	36.644	0.825	A572-65	0.971
66	12.917 - 12.667	0.25		12	36.644	36.693	0.9125	A572-65	0.961
67	12.667 - 12.5	0.167		12	36.693	36.726	0.9125	A572-65	0.961
68	12.5 - 12.25	0.25		12	36.726	36.776	0.7625	A572-65	1.008
69	12.25 - 12	0.25		12	36.776	36.825	0.7625	A572-65	1.007
70	12 - 11.75	0.25		12	36.825	36.874	0.6625	A572-65	1.077
71	11.75 - 8.5	3.25		12	36.874	37.518	0.65	A572-65	1.087
72	8.5 - 8.25	0.25		12	37.518	37.567	0.925	A572-65	0.962
73	8.25 - 7	1.25		12	37.567	37.815	0.9125	A572-65	0.970
74	7 - 6.75	0.25		12	37.815	37.864	0.8125	A572-65	0.962
75	6.75 - 1.75	5		12	37.864	38.854	0.7875	A572-65	0.976
76	1.75 - 0	1.75		12	38.854	39.200	0.7875	A572-65	0.971

# TNX Section Forces

Increment (ft):		TNX Output			
5					
	Section Height (ft)	P <sub>u</sub> (K)	M <sub>ux</sub> (kip-ft)	V <sub>u</sub> (K)	
1	144.25 - 139.25	5.11	27.06	6.63	
2	139.25 - 134.75	5.42	57.30	6.80	
3	134.75 - 134.25	5.46	60.70	6.82	
4	134.25 - 129.25	9.10	100.67	11.26	
5	129.25 - 124.25	9.45	157.36	11.43	
6	124.25 - 123.416	9.51	166.90	11.46	
7	123.416 - 123.166	9.55	169.76	11.46	
8	123.166 - 118.166	12.98	233.02	14.55	
9	118.166 - 113.166	13.50	307.58	15.14	
10	113.166 - 109.5	17.30	365.81	19.92	
11	109.5 - 109.25	17.36	370.79	19.93	
12	109.25 - 104.75	18.10	461.27	20.31	
13	104.75 - 104.5	18.17	466.35	20.32	
14	104.5 - 102.416	18.60	508.89	20.52	
15	102.416 - 102.166	18.66	514.02	20.54	
16	102.166 - 98.75	23.28	590.18	23.75	
17	98.75 - 98.5	23.36	596.11	23.76	
18	98.5 - 97.5	23.61	619.91	23.87	
19	97.5 - 97.25	23.68	625.88	23.88	
20	97.25 - 95.552	24.09	666.55	24.05	
21	95.552 - 90.552	26.13	788.25	24.64	
22	90.552 - 89.25	26.49	820.37	24.75	
23	89.25 - 89	26.59	826.55	24.76	
24	89 - 88.25	26.82	845.15	24.84	
25	88.25 - 88	26.89	851.36	24.86	
26	88 - 87.833	26.94	855.51	24.88	
27	87.833 - 87.583	27.00	861.73	24.89	
28	87.583 - 82.583	28.24	987.14	25.30	
29	82.583 - 77.583	29.53	1114.48	25.68	
30	77.583 - 77	29.69	1129.45	25.71	
31	77 - 76.75	29.77	1135.87	25.73	
32	76.75 - 76.333	29.90	1146.61	25.77	
33	76.333 - 76.083	29.97	1153.05	25.79	
34	76.083 - 74.25	30.48	1200.45	25.98	
35	74.25 - 74	30.58	1206.94	25.97	
36	74 - 73.75	30.66	1213.43	25.99	
37	73.75 - 73.5	30.74	1219.93	26.02	
38	73.5 - 68.5	32.30	1351.10	26.48	
39	68.5 - 63.5	33.89	1484.51	26.92	
40	63.5 - 60.5	34.87	1565.60	27.19	
41	60.5 - 60.25	34.96	1572.40	27.19	
42	60.25 - 59.5	35.20	1592.81	27.27	
43	59.5 - 59.25	35.29	1599.63	27.28	
44	59.25 - 54.25	36.99	1737.11	27.74	
45	54.25 - 50	38.47	1855.68	28.10	
46	50 - 44.802	41.60	2003.53	28.74	
47	44.802 - 43.583	42.03	2038.59	28.84	
48	43.583 - 43.333	42.15	2045.80	28.84	
49	43.333 - 43.166	42.21	2050.61	28.85	
50	43.166 - 42.916	42.31	2057.82	28.87	
51	42.916 - 39	43.85	2171.44	29.20	
52	39 - 38.75	43.97	2178.73	29.19	
53	38.75 - 37.166	44.61	2225.06	29.34	
54	37.166 - 36.916	44.73	2232.39	29.34	
55	36.916 - 34	45.90	2318.22	29.57	
56	34 - 33.75	46.01	2325.61	29.56	
57	33.75 - 29.75	47.58	2444.20	29.77	
58	29.75 - 29.5	47.69	2451.64	29.76	
59	29.5 - 24.5	49.69	2600.92	29.99	
60	24.5 - 23	50.29	2645.91	30.06	
61	23 - 22.75	50.42	2653.42	30.04	
62	22.75 - 21.583	50.93	2688.51	30.12	
63	21.583 - 21.333	51.04	2696.03	30.11	
64	21.333 - 16.333	53.17	2846.99	30.30	
65	16.333 - 12.917	54.64	2950.65	30.44	
66	12.917 - 12.667	54.77	2958.25	30.43	
67	12.667 - 12.5	54.85	2963.34	30.43	
68	12.5 - 12.25	54.95	2970.94	30.45	
69	12.25 - 12	55.06	2978.56	30.45	
70	12 - 11.75	55.16	2986.17	30.46	
71	11.75 - 8.5	56.46	3085.52	30.72	
72	8.5 - 8.25	56.59	3093.19	30.71	
73	8.25 - 7	57.18	3131.66	30.86	
74	7 - 6.75	57.31	3139.37	30.86	
75	6.75 - 1.75	59.49	3294.81	31.35	
76	1.75 - 0	60.25	3349.76	31.53	

# Analysis Results

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
144.25 - 139.25	Pole	TP12.75x12.75x0.375	Pole	13.9%	Pass
139.25 - 134.75	Pole	TP12.75x12.75x0.375	Pole	28.5%	Pass
134.75 - 134.25	Pole	TP13.48x13.48x0.375	Pole	26.9%	Pass
134.25 - 129.25	Pole	TP14.466x13.48x0.1875	Pole	54.2%	Pass
129.25 - 124.25	Pole	TP15.452x14.466x0.1875	Pole	73.2%	Pass
124.25 - 123.42	Pole	TP15.616x15.452x0.1875	Pole	75.9%	Pass
123.42 - 123.17	Pole + Reinf.	TP15.665x15.616x0.5375	Reinf. 25 Tension Rupture	49.5%	Pass
123.17 - 118.17	Pole + Reinf.	TP16.651x15.665x0.5125	Reinf. 25 Tension Rupture	62.6%	Pass
118.17 - 113.17	Pole + Reinf.	TP17.637x16.651x0.4875	Reinf. 25 Tension Rupture	76.1%	Pass
113.17 - 109.5	Pole + Reinf.	TP18.36x17.637x0.475	Reinf. 25 Tension Rupture	85.8%	Pass
109.5 - 109.25	Pole + Reinf.	TP18.409x18.36x0.5875	Reinf. 25 Tension Rupture	72.3%	Pass
109.25 - 104.75	Pole + Reinf.	TP19.296x18.409x0.5625	Reinf. 25 Tension Rupture	84.2%	Pass
104.75 - 104.5	Pole + Reinf.	TP19.346x19.296x0.775	Reinf. 11 Tension Rupture	68.0%	Pass
104.5 - 102.42	Pole + Reinf.	TP19.756x19.346x0.7625	Reinf. 11 Tension Rupture	72.2%	Pass
102.42 - 102.17	Pole + Reinf.	TP19.806x19.756x0.5625	Reinf. 11 Tension Rupture	90.1%	Pass
102.17 - 98.75	Pole + Reinf.	TP20.479x19.806x0.55	Reinf. 11 Tension Rupture	99.1%	Pass
98.75 - 98.5	Pole + Reinf.	TP20.528x20.479x0.8375	Reinf. 6 Bolt-Shaft Bearing	86.7%	Pass
98.5 - 97.5	Pole + Reinf.	TP20.726x20.528x0.8375	Reinf. 6 Tension Rupture	75.4%	Pass
97.5 - 97.25	Pole + Reinf.	TP20.775x20.726x0.75	Reinf. 6 Tension Rupture	87.8%	Pass
97.25 - 95.55	Pole + Reinf.	TP21.81x20.775x0.7375	Reinf. 6 Tension Rupture	91.7%	Pass
95.55 - 90.55	Pole + Reinf.	TP21.73x20.735x0.8	Reinf. 6 Tension Rupture	95.4%	Pass
90.55 - 89.25	Pole + Reinf.	TP21.989x21.73x0.775	Reinf. 6 Tension Rupture	97.7%	Pass
89.25 - 89	Pole + Reinf.	TP22.039x21.989x1	Reinf. 5 Bolt-Shaft Bearing	84.4%	Pass
89 - 88.25	Pole + Reinf.	TP22.189x22.039x0.975	Reinf. 11 Tension Rupture	70.6%	Pass
88.25 - 88	Pole + Reinf.	TP22.238x22.189x0.7625	Reinf. 5 Tension Rupture	80.8%	Pass
88 - 87.83	Pole + Reinf.	TP22.272x22.238x0.7625	Reinf. 5 Tension Rupture	81.0%	Pass
87.83 - 87.58	Pole + Reinf.	TP22.321x22.272x0.675	Reinf. 5 Tension Rupture	85.9%	Pass
87.58 - 82.58	Pole + Reinf.	TP23.317x22.321x0.65	Reinf. 5 Tension Rupture	92.7%	Pass
82.58 - 77.58	Pole + Reinf.	TP24.312x23.317x0.625	Reinf. 5 Tension Rupture	98.7%	Pass
77.58 - 77	Pole + Reinf.	TP24.428x24.312x0.625	Reinf. 5 Tension Rupture	99.4%	Pass
77 - 76.75	Pole + Reinf.	TP24.478x24.428x0.825	Reinf. 10 Tension Rupture	93.2%	Pass
76.75 - 76.33	Pole + Reinf.	TP24.561x24.478x0.825	Reinf. 10 Tension Rupture	93.7%	Pass
76.33 - 76.08	Pole + Reinf.	TP24.611x24.561x0.825	Reinf. 10 Tension Rupture	94.8%	Pass
76.08 - 74.25	Pole + Reinf.	TP24.976x24.611x0.8	Reinf. 10 Tension Rupture	96.8%	Pass
74.25 - 74	Pole + Reinf.	TP25.026x24.976x0.8875	Reinf. 10 Tension Rupture	85.5%	Pass
74 - 73.75	Pole + Reinf.	TP25.076x25.026x0.8875	Reinf. 10 Tension Rupture	85.7%	Pass
73.75 - 73.5	Pole + Reinf.	TP25.125x25.076x0.9125	Reinf. 21 Tension Rupture	84.9%	Pass
73.5 - 68.5	Pole + Reinf.	TP26.121x25.125x0.875	Reinf. 21 Tension Rupture	89.5%	Pass
68.5 - 63.5	Pole + Reinf.	TP27.116x26.121x0.85	Reinf. 21 Tension Rupture	93.7%	Pass
63.5 - 60.5	Pole + Reinf.	TP27.714x27.116x0.825	Reinf. 21 Tension Rupture	96.1%	Pass
60.5 - 60.25	Pole + Reinf.	TP27.763x27.714x0.825	Reinf. 21 Tension Rupture	96.3%	Pass
60.25 - 59.5	Pole + Reinf.	TP27.913x27.763x0.825	Reinf. 21 Tension Rupture	96.9%	Pass
59.5 - 59.25	Pole + Reinf.	TP27.962x27.913x0.8875	Reinf. 21 Tension Rupture	90.6%	Pass
59.25 - 54.25	Pole + Reinf.	TP28.958x27.962x0.85	Reinf. 21 Tension Rupture	94.1%	Pass
54.25 - 50	Pole + Reinf.	TP30.64x28.958x0.8375	Reinf. 21 Tension Rupture	96.9%	Pass
50 - 44.8	Pole + Reinf.	TP30.333x29.304x0.8375	Reinf. 9 Tension Rupture	98.7%	Pass
44.8 - 43.58	Pole + Reinf.	TP30.574x30.333x0.8375	Reinf. 9 Tension Rupture	99.3%	Pass
43.58 - 43.33	Pole + Reinf.	TP30.624x30.574x0.85	Reinf. 9 Tension Rupture	98.4%	Pass
43.33 - 43.17	Pole + Reinf.	TP30.657x30.624x0.85	Reinf. 9 Tension Rupture	98.5%	Pass
43.17 - 42.92	Pole + Reinf.	TP30.706x30.657x0.9375	Reinf. 9 Tension Rupture	93.2%	Pass
42.92 - 39	Pole + Reinf.	TP31.481x30.706x0.9125	Reinf. 9 Tension Rupture	95.1%	Pass
39 - 38.75	Pole + Reinf.	TP31.531x31.481x0.95	Reinf. 9 Tension Rupture	89.9%	Pass
38.75 - 37.17	Pole + Reinf.	TP31.844x31.531x0.9375	Reinf. 9 Tension Rupture	90.6%	Pass
37.17 - 36.92	Pole + Reinf.	TP31.894x31.844x0.8875	Reinf. 9 Tension Rupture	94.1%	Pass
36.92 - 34	Pole + Reinf.	TP32.471x31.894x0.8875	Reinf. 9 Tension Rupture	95.4%	Pass
34 - 33.75	Pole + Reinf.	TP32.52x32.471x0.875	Reinf. 8 Tension Rupture	95.4%	Pass
33.75 - 29.75	Pole + Reinf.	TP33.312x32.52x0.8625	Reinf. 8 Tension Rupture	97.0%	Pass
29.75 - 29.5	Pole + Reinf.	TP33.361x33.312x0.8625	Reinf. 8 Tension Rupture	96.0%	Pass
29.5 - 24.5	Pole + Reinf.	TP34.351x33.361x0.85	Reinf. 8 Tension Rupture	97.8%	Pass
24.5 - 23	Pole + Reinf.	TP34.648x34.351x0.8375	Reinf. 8 Tension Rupture	98.4%	Pass
23 - 22.75	Pole + Reinf.	TP34.697x34.648x0.9625	Reinf. 8 Tension Rupture	91.2%	Pass
22.75 - 21.58	Pole + Reinf.	TP34.928x34.697x0.9625	Reinf. 8 Tension Rupture	91.6%	Pass
21.58 - 21.33	Pole + Reinf.	TP34.978x34.928x0.85	Reinf. 8 Tension Rupture	96.7%	Pass
21.33 - 16.33	Pole + Reinf.	TP35.967x34.978x0.8375	Reinf. 8 Tension Rupture	98.2%	Pass
16.33 - 12.92	Pole + Reinf.	TP36.644x35.967x0.825	Reinf. 8 Tension Rupture	99.2%	Pass
12.92 - 12.67	Pole + Reinf.	TP36.693x36.644x0.9125	Reinf. 7 Tension Rupture	89.9%	Pass
12.67 - 12.5	Pole + Reinf.	TP36.726x36.693x0.9125	Reinf. 7 Tension Rupture	90.0%	Pass
12.5 - 12.25	Pole + Reinf.	TP36.776x36.726x0.7625	Reinf. 14 Tension Rupture	93.3%	Pass
12.25 - 12	Pole + Reinf.	TP36.825x36.776x0.7625	Reinf. 14 Tension Rupture	93.4%	Pass
12 - 11.75	Pole + Reinf.	TP36.874x36.825x0.6625	Reinf. 2 Tension Rupture	95.5%	Pass
11.75 - 8.5	Pole + Reinf.	TP37.518x36.874x0.65	Reinf. 2 Tension Rupture	96.2%	Pass
8.5 - 8.25	Pole + Reinf.	TP37.567x37.518x0.925	Reinf. 1 Tension Rupture	78.9%	Pass
8.25 - 7	Pole + Reinf.	TP37.815x37.567x0.9125	Reinf. 1 Tension Rupture	79.2%	Pass
7 - 6.75	Pole + Reinf.	TP37.864x37.815x0.8125	Reinf. 1 Tension Rupture	91.7%	Pass
6.75 - 1.75	Pole + Reinf.	TP38.854x37.864x0.7875	Reinf. 1 Tension Rupture	92.9%	Pass
1.75 - 0	Pole + Reinf.	TP39.2x38.854x0.7875	Reinf. 1 Tension Rupture	93.3%	Pass
				Summary	
			Pole	85.4%	Pass
			Reinforcement	99.4%	Pass
			Overall	99.4%	Pass



# Monopole Flange Plate Connection

Elevation = 134.25 ft.

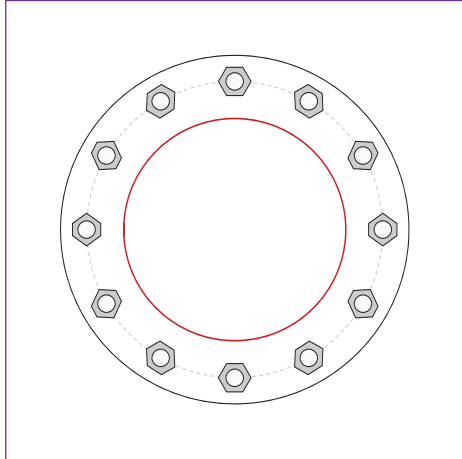


BU #	876317
Site Name	WATERBURY,CT
Order #	614658,Rev# 0
TIA-222 Revision	H

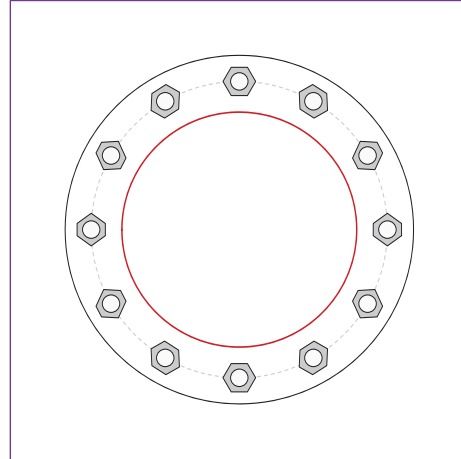
Applied Loads	
Moment (kip-ft)	60.70
Axial Force (kips)	5.46
Shear Force (kips)	6.82

\*TIA-222-H Section 15.5 Applied

Top Plate - External



Bottom Plate - External



### Connection Properties

#### Bolt Data

(12) 1"  $\phi$  bolts (A325 N; Fy=92 ksi, Fu=120 ksi) on 17" BC

#### Top Plate Data

20" OD x 1" Plate (A572-50; Fy=50 ksi, Fu=65 ksi)

#### Top Stiffener Data

N/A

#### Top Pole Data

12.75" x 0.375" round pole (A500-46; Fy=46 ksi, Fu=62 ksi)

#### Bottom Plate Data

20" OD x 1" Plate (A572-50; Fy=50 ksi, Fu=65 ksi)

#### Bottom Stiffener Data

N/A

#### Bottom Pole Data

13.48" x 0.1875" 12-sided pole (A572-65; Fy=65 ksi, Fu=80 ksi)

### Analysis Results

#### Bolt Capacity

Max Load (kips)	13.81
Allowable (kips)	54.53
Stress Rating:	<b>24.1%</b> Pass

#### Top Plate Capacity

Max Stress (ksi):	20.11	(Flexural)
Allowable Stress (ksi):	45.00	
Stress Rating:	<b>42.6%</b>	Pass
Tension Side Stress Rating:	<b>26.0%</b>	Pass

#### Bottom Plate Capacity

Max Stress (ksi):	16.16	(Flexural)
Allowable Stress (ksi):	45.00	
Stress Rating:	<b>34.2%</b>	Pass
Tension Side Stress Rating:	<b>18.9%</b>	Pass

# Monopole Base Plate Connection

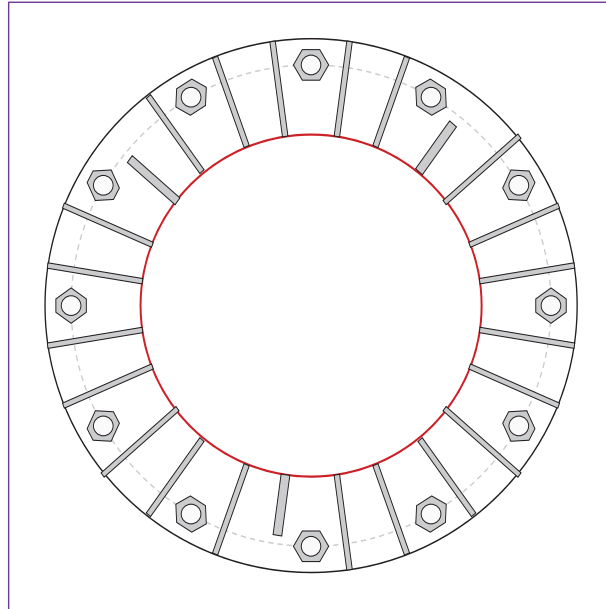


Site Info	
BU #	876317
Site Name	WATERBURY,CT
Order #	614658,Rev# 0

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	No
$I_{ar}$ (in)	0.75

Applied Loads	
Moment (kip-ft)	3349.76
Axial Force (kips)	60.25
Shear Force (kips)	31.53

\*TIA-222-H Section 15.5 Applied



Connection Properties	Analysis Results
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Anchor Rod Data	
(12) 2-1/4" $\phi$ bolts (A615-75 N; $F_y=75$ ksi, $F_u=100$ ksi) on 55.16" BC	

Base Plate Data	
61.16" OD x 2.5" Plate (S-128; $F_y=60$ ksi, $F_u=80$ ksi)	

Stiffener Data	
Group 1: (21) 21.5"H x 11"W x 0.625"T, Notch: 0.75"	
plate: $F_y=50$ ksi ; weld: $F_y=80$ ksi	
horiz. weld: 0.3125" groove, 45° dbl bevel, 0.5" fillet	
vert. weld: 0.3125" fillet	

Group 2: (3) 126"H x 7"W x 1"T, Notch: 0.75"	
plate: $F_y=65$ ksi ; weld: $F_y=80$ ksi	
horiz. weld: 0.5" groove, 45° dbl bevel, 0.3125" fillet	
vert. weld: 0.3125" fillet	

Pole Data	
39.2" x 0.3125" 12-sided pole (A572-65; $F_y=65$ ksi, $F_u=80$ ksi)	

Anchor Rod Summary		(units of kips, kip-in)
$Pu\_t = 237.73$	$\phi Pn\_t = 243.75$	<b>Stress Rating</b>
$Vu = 2.63$	$\phi Vn = 149.1$	<b>92.9%</b>
$Mu = n/a$	$\phi Mn = n/a$	<b>Pass</b>

Base Plate Summary	
Max Stress (ksi):	32.61 (Flexural)
Allowable Stress (ksi):	54
Stress Rating:	<b>57.5%</b> <b>Pass</b>

Stiffener Summary	
Horizontal Weld:	<b>43.2%</b> <b>Pass</b>
Vertical Weld:	<b>43.4%</b> <b>Pass</b>
Plate Flexure+Shear:	<b>24.0%</b> <b>Pass</b>
Plate Tension+Shear:	<b>45.1%</b> <b>Pass</b>
Plate Compression:	<b>64.4%</b> <b>Pass</b>

Pole Summary	
Punching Shear:	<b>17.5%</b> <b>Pass</b>



# Pier and Pad Foundation



BU #: 876317  
 Site Name: WATERBURY, CT  
 App. Number: 614658, Rev# 0

TIA-222 Revision: H  
 Tower Type: Monopole

Top & Bot. Pad Rein. Different?:   
 Block Foundation?:   
 Rectangular Pad?:

Superstructure Analysis Reactions		
Compression, $P_{comp}$ :	62.25	kips
Base Shear, $V_u$ comp:	31.53	kips
Moment, $M_u$ :	3349.76	ft-kips
Tower Height, $H$ :	143	ft
BP Dist. Above Fdn, $bp_{dist}$ :	2.75	in
Bolt Circle / Bearing Plate Width, $BC$ :	55.16	in

Foundation Analysis Checks				
	Capacity	Demand	Rating*	Check
<i>Lateral (Sliding) (kips)</i>	278.50	31.53	10.8%	Pass
<i>Bearing Pressure (ksf)</i>	22.50	7.31	32.5%	Pass
<i>Overturing (kip*ft)</i>	3959.88	3569.81	90.1%	Pass
<i>Pad Flexure (kip*ft)</i>	9014.86	2084.25	22.0%	Pass
<i>Pad Shear - 1-way (kips)</i>	1732.56	209.44	11.5%	Pass
<i>Pad Shear - 2-way (Comp) (ksi)</i>	0.190	0.000	0.0%	Pass
<i>Flexural 2-way (Comp) (kip*ft)</i>	18499.97	0.00	0.0%	Pass

\*Rating per TIA-222-H Section 15.5

Structural Rating*:	22.0%
Soil Rating*:	90.1%

Pad Properties		
Depth, $D$ :	6.75	ft
Pad Width, $W_1$ :	20	ft
Pad Thickness, $T$ :	6.75	ft
Pad Rebar Size (Top dir.2), $Sp_{top2}$ :	9	
Pad Rebar Quantity (Top dir. 2), $mp_{top2}$ :	28	
Pad Rebar Size (Bottom dir. 2), $Sp_2$ :	10	
Pad Rebar Quantity (Bottom dir. 2), $mp_2$ :	21	
Pad Clear Cover, $cc_{pad}$ :	3	in

Material Properties		
Rebar Grade, $F_y$ :	60	ksi
Concrete Compressive Strength, $F'_c$ :	4	ksi
Dry Concrete Density, $\delta_c$ :	150	pcf

Soil Properties		
Total Soil Unit Weight, $\gamma$ :	125	pcf
Ultimate Gross Bearing, $Q_{ult}$ :	30.000	ksf
Cohesion, $C_u$ :	0.000	ksf
Friction Angle, $\phi$ :	36	degrees
SPT Blow Count, $N_{blows}$ :		
Base Friction, $\mu$ :	0.5	
Neglected Depth, $N$ :	3.33	ft
Foundation Bearing on Rock?	No	
Groundwater Depth, $gw$ :	11.5	ft

B2

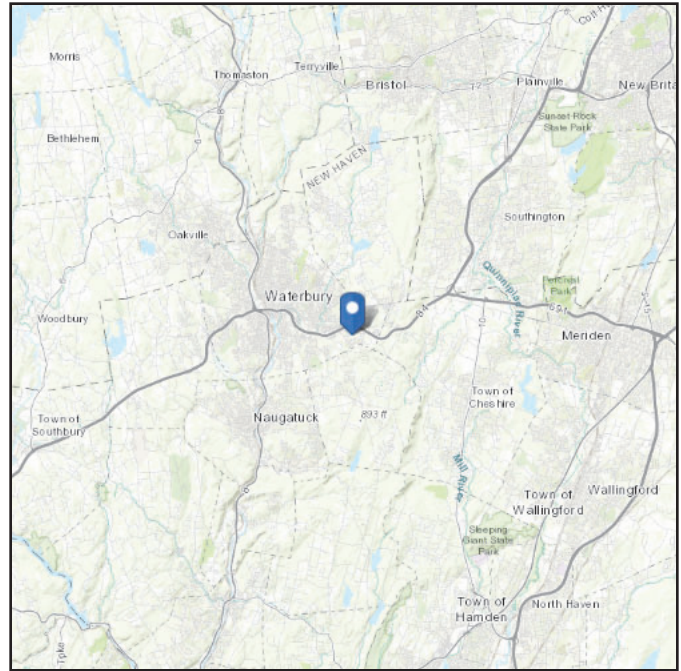
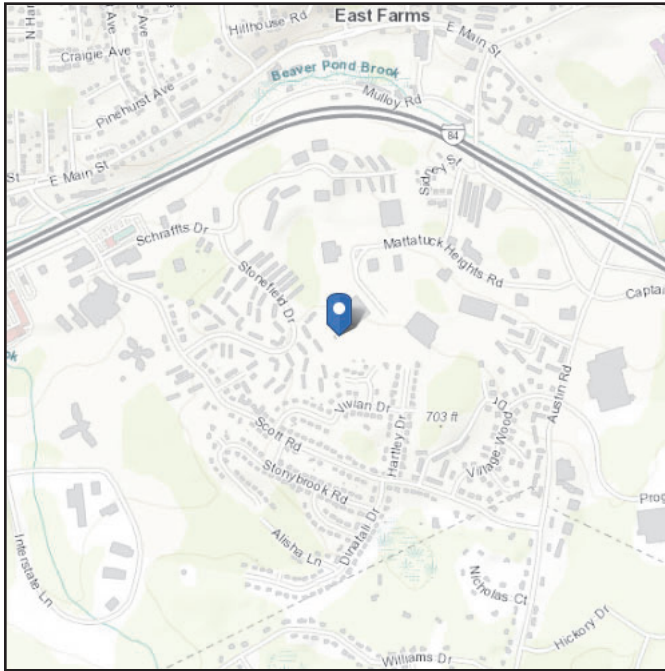
<--Toggle between Gross and Net

# ASCE 7 Hazards Report

**Address:**  
No Address at This Location

**Standard:** ASCE/SEI 7-16  
**Risk Category:** II  
**Soil Class:** D - Default (see Section 11.4.3)

**Elevation:** 660.21 ft (NAVD 88)  
**Latitude:** 41.537861  
**Longitude:** -72.985028



## Wind

### Results:

Wind Speed	118 Vmph
10-year MRI	75 Vmph
25-year MRI	84 Vmph
50-year MRI	90 Vmph
100-year MRI	97 Vmph

Data Source: ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2

Date Accessed: Sat May 07 2022

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

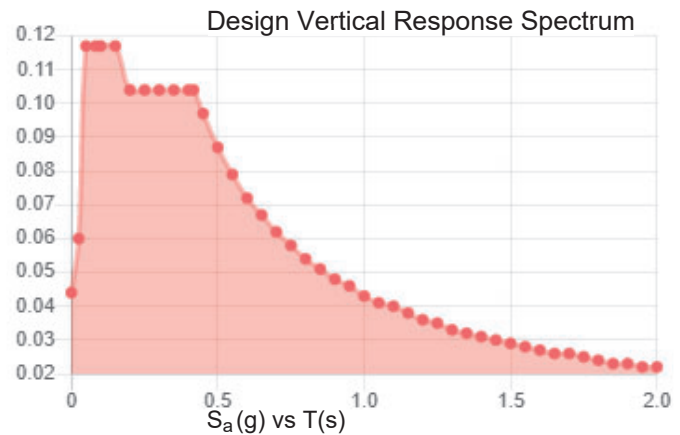
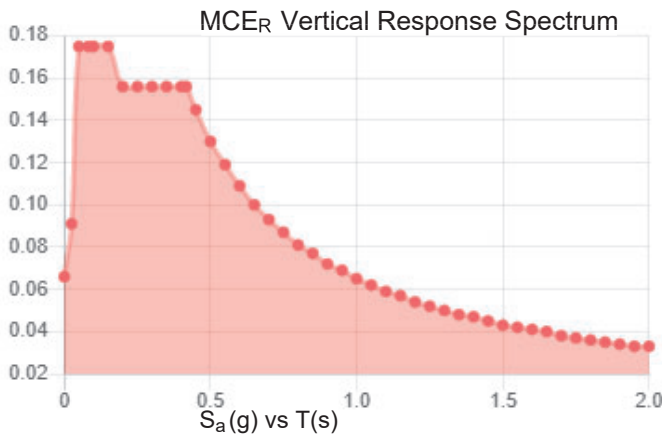
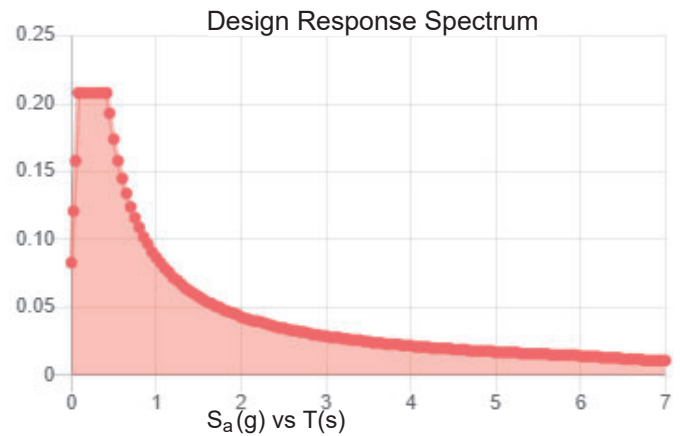
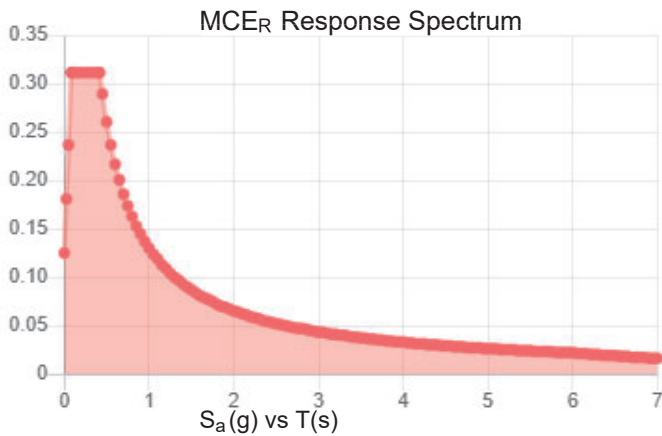
Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings need not be protected against wind-borne debris.

**Site Soil Class:** D - Default (see Section 11.4.3)

**Results:**

$S_s$ :	0.195	$S_{D1}$ :	0.087
$S_1$ :	0.054	$T_L$ :	6
$F_a$ :	1.6	PGA :	0.108
$F_v$ :	2.4	PGA <sub>M</sub> :	0.171
$S_{MS}$ :	0.312	$F_{PGA}$ :	1.585
$S_{M1}$ :	0.13	$I_e$ :	1
$S_{DS}$ :	0.208	$C_v$ :	0.7

**Seismic Design Category** B



**Data Accessed:** Sat May 07 2022

**Date Source:**

USGS Seismic Design Maps based on ASCE/SEI 7-16 and ASCE/SEI 7-16 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-16 Ch. 21 are available from USGS.

## Ice

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### Results:

Ice Thickness: 1.00 in.  
Concurrent Temperature: 15 F  
Gust Speed 50 mph

**Data Source:** Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8

**Date Accessed:** Sat May 07 2022

Ice thicknesses on structures in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 500-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

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# Radio Frequency Emissions Analysis Report



**Site ID: CT11269B**

Waterbury / I-84 / Mattatuck  
150 Mattatuck Heights  
Waterbury, CT 06705

**June 15, 2022**

**Fox Hill Telecom Project Number: 221372**

<b>Site Compliance Summary</b>	
Compliance Status:	<b>COMPLIANT</b>
Site total MPE% of FCC general population allowable limit:	<b>38.81 %</b>

June 15, 2022

T-MOBILE  
Attn: RF Manager  
35 Griffin Road South  
Bloomfield, CT 06009

### Emissions Analysis for Site: **CT11269B – Waterbury / I-84 / Mattatuck**

Fox Hill Telecom, Inc (“Fox Hill”) was directed to analyze the proposed upgrades to the T-MOBILE facility located at **150 Mattatuck Heights, Waterbury, CT**, for the purpose of determining whether the emissions from the Proposed T-MOBILE Antenna Installation located on this property are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01 and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter ( $\mu\text{W}/\text{cm}^2$ ). The number of  $\mu\text{W}/\text{cm}^2$  calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits, therefore it is necessary to report results and limits in terms of percent MPE rather than power density.

All results were compared to the FCC (Federal Communications Commission) radio frequency exposure rules, 47 CFR 1.1307(b)(1) – (b)(3), to determine compliance with the Maximum Permissible Exposure (MPE) limits for General Population/Uncontrolled environments as defined below.

General population/uncontrolled exposure limits apply to situations in which the general population may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general population would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

General population exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ( $\mu\text{W}/\text{cm}^2$ ). The general population exposure limits for the 600 MHz & 700 MHz bands are approximately  $400 \mu\text{W}/\text{cm}^2$  and  $467 \mu\text{W}/\text{cm}^2$  respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS) and 2500 MHz (BRS) bands is  $1000 \mu\text{W}/\text{cm}^2$ . Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.



Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Additional details can be found in FCC OET 65.

## CALCULATIONS

Calculations were performed for the proposed upgrades to the T-MOBILE antenna facility located at **150 Mattatuck Heights, Waterbury, CT**, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since T-MOBILE is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB for directional panel antennas, was focused at the base of the tower. For this report the sample point is the top of a 6-foot person standing at the base of the tower.

Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. All power values expressed and analyzed are maximum power levels expected to be used on all radios.

All emissions values for additional carriers were taken from the Connecticut Siting Council (CSC) active MPE database. Values in this database are provided by the individual carriers themselves

For each sector the following channel counts, frequency bands and power levels were utilized as shown in *Table 1*:

Technology	Frequency Band	Channel Count	Transmit Power per Channel (W)
LTE / 5G NR	600 MHz	2	40
LTE	700 MHz	2	20
LTE	1900 MHz (PCS)	4	40
UMTS	1900 MHz (PCS)	1	40
LTE	2100 MHz (AWS)	4	40
LTE	1900 MHz (PCS)	4	40
GSM	1900 MHz (PCS)	1	15
LTE / 5G NR	2500 MHz (BRS)	8	20

*Table 1: Channel Data Table*





The following antennas listed in *Table 2* were used in the modeling for transmission in the 600 MHz, 700 MHz, 1900 MHz (PCS), 2100 MHz (AWS) and 2500 MHz (BRS) frequency bands. This is based on feedback from the carrier with regards to anticipated antenna selection. Maximum gain values for all antennas are listed in the Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB for directional panel antennas, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

Sector	Antenna Number	Antenna Make / Model	Antenna Centerline (ft)
A	1	RFS APXVAARR24_43-U-NA20	100
A	2	Commscope AIR32 B66A / B2A	100
A	3	Ericsson AIR6419 B41	100
B	1	RFS APXVAARR24_43-U-NA20	100
B	2	Commscope AIR32 B66A / B2A	100
B	3	Ericsson AIR6419 B41	100
C	1	RFS APXVAARR24_43-U-NA20	100
C	2	Commscope AIR32 B66A / B2A	100
C	3	Ericsson AIR6419 B41	100

*Table 2: Antenna Data*

All calculations were done with respect to uncontrolled / general population threshold limits.



## RESULTS

Per the calculations completed for the proposed T-MOBILE configurations *Table 3* shows resulting emissions power levels and percentages of the FCC’s allowable general population limit.

Antenna ID	Antenna Make / Model	Frequency Bands	Antenna Gain (dBd)	Channel Count	Total TX Power (W)	ERP (W)	MPE %
Antenna A1	RFS APXVAARR24_43-U-NA20	600 MHz / 700 MHz / 1900 MHz (PCS)	12.95 / 13.35 / 15.65	9	320	9,788.67	5.35
Antenna A2	Commscope AIR32 B66A / B2A	1900 MHz (PCS) / 2100 MHz (AWS)	15.85 / 15.85 / 15.85	9	335	12,883.82	5.23
Antenna A3	Ericsson AIR6419 B41	2500 MHz (BRS)	21.5	8	160	22,600.60	9.20
Sector A Composite MPE%							<b>19.78</b>
Antenna B1	RFS APXVAARR24_43-U-NA20	600 MHz / 700 MHz / 1900 MHz (PCS)	12.95 / 13.35 / 15.65	9	320	9,788.67	5.35
Antenna B2	Commscope AIR32 B66A / B2A	1900 MHz (PCS) / 2100 MHz (AWS)	15.85 / 15.85 / 15.85	9	335	12,883.82	5.23
Antenna B3	Ericsson AIR6419 B41	2500 MHz (BRS)	21.5	8	160	22,600.60	9.20
Sector B Composite MPE%							<b>19.78</b>
Antenna C1	RFS APXVAARR24_43-U-NA20	600 MHz / 700 MHz / 1900 MHz (PCS)	12.95 / 13.35 / 15.65	9	320	9,788.67	5.35
Antenna C2	Commscope AIR32 B66A / B2A	1900 MHz (PCS) / 2100 MHz (AWS)	15.85 / 15.85 / 15.85	9	335	12,883.82	5.23
Antenna C3	Ericsson AIR6419 B41	2500 MHz (BRS)	21.5	8	160	22,600.60	9.20
Sector C Composite MPE%							<b>19.78</b>

*Table 3: T-MOBILE Emissions Levels*

The Following table (*table 4*) shows all additional carriers on site and their MPE% as recorded in the CSC active MPE database for this facility along with the newly calculated maximum T-MOBILE MPE contributions per this report. FCC OET 65 specifies that for carriers utilizing directional antennas that the highest recorded sector value be used for composite site MPE values due to their greatly reduced emissions contributions in the directions of the adjacent sectors. For this site, all three sectors have the same configuration yielding the same results on all three sectors. *Table 5* below shows a summary for each T-MOBILE Sector as well as the composite MPE value for the site.

<b>Site Composite MPE%</b>	
<b>Carrier</b>	<b>MPE%</b>
T-MOBILE – Max Per Sector Value	<b>19.78 %</b>
AT&T	8.06 %
Verizon Wireless	8.82 %
Clearwire	0.12 %
Sprint	1.59 %
Nextel	0.44 %
<b>Site Total MPE %:</b>	<b>38.81 %</b>

*Table 4: All Carrier MPE Contributions*

T-MOBILE Sector A Total:	19.78 %
T-MOBILE Sector B Total:	19.78 %
T-MOBILE Sector C Total:	19.78 %
Site Total:	38.81 %

*Table 5: Site MPE Summary*



FCC OET 65 specifies that for carriers utilizing directional antennas that the highest recorded sector value be used for composite site MPE values due to their greatly reduced emissions contributions in the directions of the adjacent sectors. *Table 6* below details a breakdown by frequency band and technology for the MPE power values for the maximum calculated T-MOBILE sector(s). For this site, all three sectors have the same configuration yielding the same results on all three sectors.

T-MOBILE _ Frequency Band / Technology Max Power Values (Per Sector)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ( $\mu\text{W}/\text{cm}^2$ )	Frequency (MHz)	Allowable MPE ( $\mu\text{W}/\text{cm}^2$ )	Calculated % MPE
T-Mobile 600 MHz LTE / 5G NR	2	788.97	100	6.42	600 MHz	400	1.61%
T-Mobile 700 MHz LTE	2	432.54	100	3.52	700 MHz	467	0.75%
T-Mobile 1900 MHz (PCS) LTE	4	1,469.13	100	23.91	1900 MHz (PCS)	1000	2.39%
T-Mobile 1900 MHz (PCS) UMTS	1	1,469.13	100	5.98	1900 MHz (PCS)	1000	0.60%
T-Mobile 1900 MHz (PCS) LTE	4	1,538.37	100	25.04	1900 MHz (PCS)	1000	2.50%
T-Mobile 2100 MHz (AWS) LTE	4	1,538.37	100	25.04	2100 MHz (AWS)	1000	2.50%
T-Mobile 1900 MHz (PCS) GSM	1	576.89	100	2.35	1900 MHz (PCS)	1000	0.23%
T-Mobile 2500 MHz (BRS) LTE / 5G NR	8	2,825.08	100	91.95	2500 MHz (BRS)	1000	9.20%
						<b>Total:</b>	<b>19.78%</b>

*Table 6: T-MOBILE Maximum Sector MPE Power Values*



## Summary

All calculations performed for this analysis yielded results that were **within** the allowable limits for general population exposure to RF Emissions.

The anticipated maximum composite contributions from the T-MOBILE facility as well as the site composite emissions value with regards to compliance with FCC's allowable limits for general population exposure to RF Emissions are shown here:

T-MOBILE Sector	Power Density Value (%)
Sector A:	19.78 %
Sector B:	19.78 %
Sector C:	19.78 %
T-MOBILE Maximum Total (per sector):	19.78 %
Site Total:	38.81 %
Site Compliance Status:	<b>COMPLIANT</b>

The anticipated composite MPE value for this site assuming all carriers present is **38.81 %** of the allowable FCC established general population limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

FCC guidelines state that if a site is found to be out of compliance (over allowable thresholds), that carriers over a 5% contribution to the composite value will require measures to bring the site into compliance. For this facility, the composite values calculated were well within the allowable 100% threshold standard per the federal government.

Scott Heffernan  
Principal RF Engineer  
**Fox Hill Telecom, Inc**  
Holden, MA 01520  
(978)660-3998



# T-Mobile

**T-MOBILE SITE NUMBER: CT11269B**  
**T-MOBILE SITE NAME: WATERBURY/I-84/MATTATUCK**  
**SITE TYPE: MONOPOLE**  
**TOWER HEIGHT: 143'-0"**

**BUSINESS UNIT #: 876317**  
**SITE ADDRESS: 150 MATTATUCK HEIGHTS**  
**WATERBURY, CT 06705**  
**COUNTY: NEW HAVEN**  
**JURISDICTION: CONNECTICUT**  
**SITING COUNCIL**

**T-MOBILE ANCHOR SITE CONFIGURATION: 67D5A997DB HYBRID**

**T-Mobile**  
 35 GRIFFIN ROAD  
 BLOOMFIELD, CT 06002

**CROWN CASTLE**  
 3 CORPORATE PARK DRIVE, SUITE 101  
 CLIFTON PARK, NY 12065

**B+T GRP**  
 1717 S. BOULDER  
 SUITE 300  
 TULSA, OK 74119  
 PH: (918) 587-4630  
 www.btgrp.com

**T-MOBILE SITE NUMBER: CT11269B**  
**BU #: 876317**  
**WATERBURY**  
 150 MATTATUCK HEIGHTS  
 WATERBURY, CT 06705  
 EXISTING  
 143'-0" MONOPOLE

**ISSUED FOR:**

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	6/2/22	GAC	PRELIMINARY REVIEW	LR
0	6/17/22	GAC	CONSTRUCTION	LR

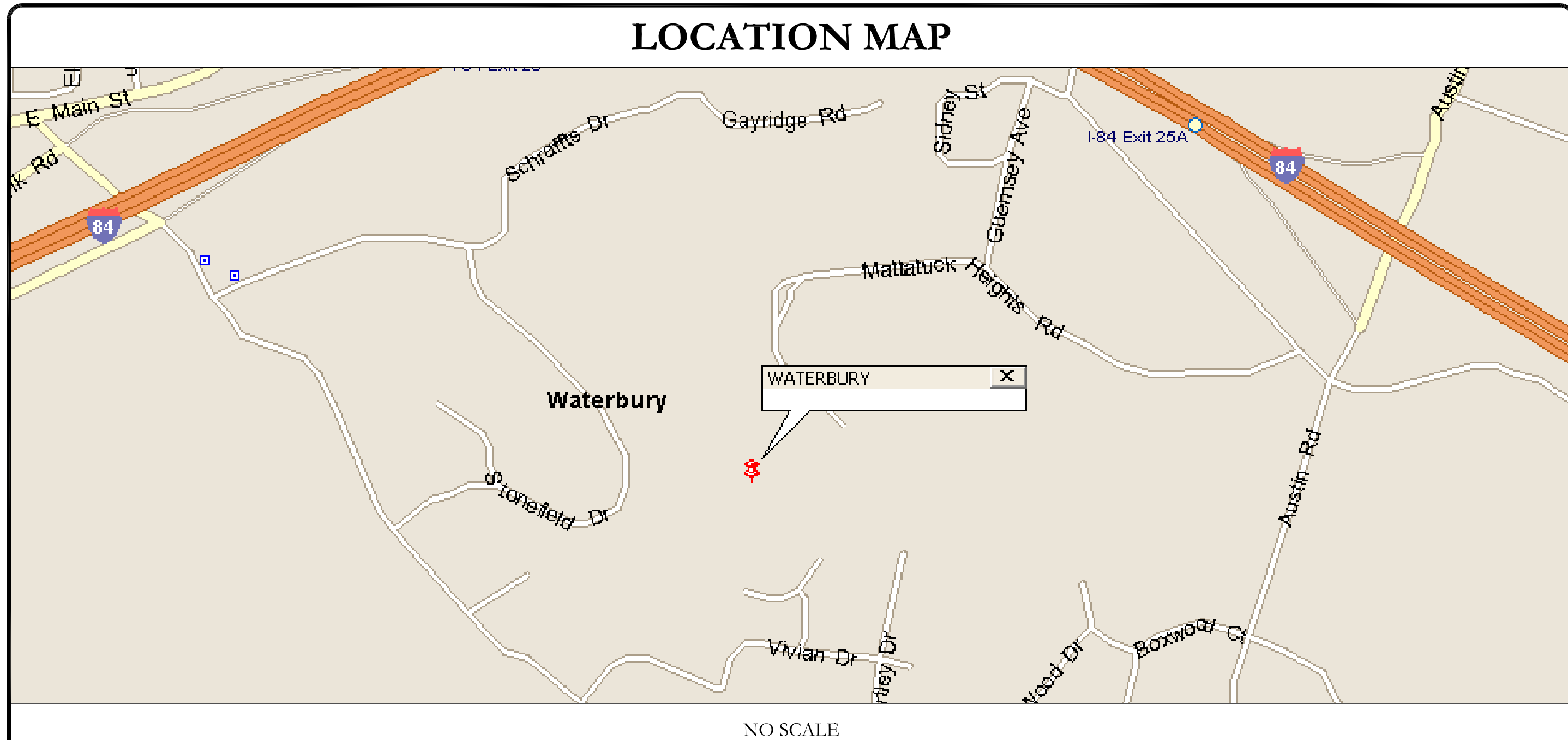
SITE INFORMATION	
CROWN CASTLE USA INC. SITE NAME:	WATERBURY
SITE ADDRESS:	150 MATTATUCK HEIGHTS WATERBURY, CT 06705
COUNTY:	NEW HAVEN
MAP/PARCEL #:	0424-0141-0001
AREA OF CONSTRUCTION:	EXISTING
LATITUDE:	41.537861°
LONGITUDE:	-72.985028°
LAT/LONG TYPE:	NAD83
GROUND ELEVATION:	661 FT
CURRENT ZONING:	IP - INDUSTRIAL PARK DISTRICT
JURISDICTION:	CONNECTICUT SITING COUNCIL
OCCUPANCY CLASSIFICATION:	U
TYPE OF CONSTRUCTION:	IIB
A.D.A. COMPLIANCE:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION
PROPERTY OWNER:	WATERBURY TWIN LLC & 150 MH LLC 12 ISELIN TERRACE LARCHMONT, NY 10538
TOWER OWNER:	CROWN CASTLE 2000 CORPORATE DRIVE CANONSBURG, PA 15317
CARRIER/APPLICANT:	T-MOBILE 35 GRIFFIN ROAD BLOOMFIELD, CT 06002
ELECTRIC PROVIDER:	CONNECTICUT LIGHT & POWER CO 1-800-286-2000
TELCO PROVIDER:	LIGHTOWER 855-91-FIBER

PROJECT TEAM	
A&E FIRM:	B+T GROUP 1717 S. BOULDER AVE. TULSA, OK 74119 MARVIN PHILLIPS MARVIN.PHILLIPS@BTGRP.COM
CROWN CASTLE USA INC. DISTRICT CONTACTS:	3 CORPORATE PARK DRIVE, SUITE 101 CLIFTON PARK, NY 12065  TRICIA PELON - PROJECT MANAGER TRICIA.PELON@CROWNCastle.COM  JASON DAMICO - CONSTRUCTION MANAGER JASON.DAMICO@CROWNCastle.COM
NOTE:	PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN NOC AT (800) 788-7011 & CROWN CONSTRUCTION MANAGER.

DRAWING INDEX	
SHEET #	SHEET DESCRIPTION
T-1	TITLE SHEET
T-2	CODE SUMMARY
T-3	CODE SUMMARY
T-4	GENERAL NOTES
C-1.1	OVERALL SITE PLAN
C-1.2	SITE PLAN & ENLARGED SITE PLAN
C-2	FINAL ELEVATION & ANTENNA PLANS
C-3	ANTENNA & CABLE SCHEDULE
C-4	PLUMBING DIAGRAM
C-5	EQUIPMENT SPECS
G-1	ANTENNA GROUNDING DIAGRAM
G-2	GROUNDING DETAILS
G-3	GROUNDING DETAILS
ATTACHED	HANDRAIL SPECIFICATIONS

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR FULL SIZE. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

PROJECT DESCRIPTION	
THE PURPOSE OF THIS PROJECT IS TO ENHANCE BROADBAND CONNECTIVITY AND CAPACITY TO THE EXISTING ELIGIBLE WIRELESS FACILITY.	
TOWER SCOPE OF WORK:	
<ul style="list-style-type: none"> <li>REMOVE (3) ANTENNAS</li> <li>REMOVE (3) TMAs</li> <li>REMOVE (6) 7/8" COAX CABLES</li> <li>REMOVE (1) 9X18 HCS CABLE</li> <li>RELOCATE (6) ANTENNAS</li> <li>RELOCATE (3) RRHs</li> <li>INSTALL NEW T-MOBILE MOUNT MODIFICATION AS PER MOUNT DOCUMENT BY TOWER ENGINEERING PROFESSIONALS DATED 5/3/22</li> <li>INSTALL (3) ANTENNAS</li> <li>INSTALL (3) RRHs</li> <li>INSTALL (1) HYBRID TRUNK 6/24 4AWG</li> </ul>	
GROUND SCOPE OF WORK:	
<ul style="list-style-type: none"> <li>REMOVE (1) RBS 2106 CABINET</li> <li>REMOVE (1) DUW30</li> <li>REMOVE (6) RUS01 B4</li> <li>INSTALL NEW PAD EXTENSION</li> <li>INSTALL (1) 6160 CABINET</li> <li>INSTALL (1) B160 BATTERY CABINET</li> <li>INSTALL (1) RP 6651</li> <li>INSTALL (1) PSU 4813 vR2A (Kit)</li> <li>INSTALL (1) CSR IXRe V2 (Gen2)</li> </ul>	
NOTE: THE POWER DESIGN FOR ANY AC ELECTRICAL POWER CHANGES IS TO BE PERFORMED BY OTHERS AND IS SHOWN HERE FOR REFERENCE PURPOSES ONLY. T-MOBILE IS SOLELY RESPONSIBLE FOR THE ELECTRICAL POWER DESIGN.	



APPLICABLE CODES/REFERENCE DOCUMENTS	
ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES:	
CODE TYPE	CODE
BUILDING	2018 CONNECTICUT SBC/2015 IBC
MECHANICAL	2018 CONNECTICUT SBC/2015 IMC
ELECTRICAL	2018 CONNECTICUT SBC/2017 NEC
REFERENCE DOCUMENTS:	
STRUCTURAL ANALYSIS:	B+T GROUP
DATED:	5/9/22
MOUNT ANALYSIS:	TOWER ENGINEERING PROFESSIONALS
DATED:	5/3/22
AC ELECTRICAL POWER DESIGN:	BY OTHERS
DATED:	
RFDS REVISION:	5
DATED:	4/11/22
ORDER ID:	614658
REVISION:	0

CALL CONNECTICUT ONE CALL (800) 922-4455 CBYD.COM CALL 2 WORKING DAYS BEFORE YOU DIG!

APPROVALS		
APPROVAL	SIGNATURE	DATE
PROPERTY OWNER OR REP.	_____	_____
LAND USE PLANNER	_____	_____
T-MOBILE	_____	_____
OPERATIONS	_____	_____
RF	_____	_____
NETWORK	_____	_____
BACKHAUL	_____	_____
CONSTRUCTION MANAGER	_____	_____

THE PARTIES ABOVE HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE THE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL CONSTRUCTION DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AND ANY CHANGES AND MODIFICATIONS THEY MAY IMPOSE.

MTS ENGINEERING P.L.L.C.  
 BER:2386985  
 Expires 3/31/23

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET NUMBER: <b>T-1</b>	REVISION: <b>0</b>
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**CROWN CASTLE USA INC. SITE ACTIVITY REQUIREMENTS:**

- NOTICE TO PROCEED- NO WORK SHALL COMMENCE PRIOR TO CROWN CASTLE USA INC. WRITTEN NOTICE TO PROCEED (NTP) AND THE ISSUANCE OF A PURCHASE ORDER. PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN CASTLE USA INC. NOC AT 800-788-7011 & THE CROWN CASTLE USA INC. CONSTRUCTION MANAGER.
- "LOOK UP" - CROWN CASTLE USA INC. SAFETY CLIMB REQUIREMENT: THE INTEGRITY OF THE SAFETY CLIMB AND ALL COMPONENTS OF THE CLIMBING FACILITY SHALL BE CONSIDERED DURING ALL STAGES OF DESIGN, INSTALLATION, AND INSPECTION. TOWER MODIFICATION, MOUNT REINFORCEMENTS, AND/OR EQUIPMENT INSTALLATIONS SHALL NOT COMPROMISE THE INTEGRITY OR FUNCTIONAL USE OF THE SAFETY CLIMB OR ANY COMPONENTS OF THE CLIMBING FACILITY ON THE STRUCTURE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO: PINCHING OF THE WIRE ROPE, BENDING OF THE WIRE ROPE FROM ITS SUPPORTS, DIRECT CONTACT OR CLOSE PROXIMITY TO THE WIRE ROPE WHICH MAY CAUSE FRICTIONAL WEAR, IMPACT TO THE ANCHORAGE POINTS IN ANY WAY, OR TO IMPEDE/BLOCK ITS INTENDED USE. ANY COMPROMISED SAFETY CLIMB, INCLUDING EXISTING CONDITIONS MUST BE TAGGED OUT AND REPORTED TO YOUR CROWN CASTLE USA INC. POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET.
- PRIOR TO THE START OF CONSTRUCTION, ALL REQUIRED JURISDICTIONAL PERMITS SHALL BE OBTAINED. THIS INCLUDES, BUT IS NOT LIMITED TO, BUILDING, ELECTRICAL, MECHANICAL, FIRE, FLOOD ZONE, ENVIRONMENTAL, AND ZONING. AFTER ONSITE ACTIVITIES AND CONSTRUCTION ARE COMPLETED, ALL REQUIRED PERMITS SHALL BE SATISFIED AND CLOSED OUT ACCORDING TO LOCAL JURISDICTIONAL REQUIREMENTS.
- ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN, AND SHALL MEET ANSI/ASSE A10.48 (LATEST EDITION); FEDERAL, STATE, AND LOCAL REGULATIONS; AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATED TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSE A10.48 (LATEST EDITION) AND CROWN CASTLE USA INC. STANDARD CED-STD-10253, INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION, TO CERTIFY THE SUPPORTING STRUCTURE(S) IN ACCORDANCE WITH ANSI/TIA-322 (LATEST EDITION).
- ALL SITE WORK TO COMPLY WITH QAS-STD-10068 "INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON CROWN CASTLE USA INC. TOWER SITE," CED-STD-10294 "STANDARD FOR INSTALLATION OF MOUNTS AND APPURTENANCES," AND LATEST VERSION OF ANSI/TIA-1019-A-2012 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS." IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY CROWN CASTLE USA INC. PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
- ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION E) CONSTRUCTION SAFETY PROCEDURES.
- ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND PROJECT SPECIFICATIONS, LATEST APPROVED REVISION.
- CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH AT THE COMPLETION OF THE WORK. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
- ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF CONTRACTOR, TOWER OWNER, CROWN CASTLE USA INC., AND/OR LOCAL UTILITIES.
- THE CONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE REQUIRED BY LOCAL JURISDICTION AND SIGNAGE REQUIRED ON INDIVIDUAL PIECES OF EQUIPMENT, ROOMS, AND SHELTERS.
- THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE CARRIER'S EQUIPMENT AND TOWER AREAS.
- THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
- THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION AS SPECIFIED ON THE CONSTRUCTION DRAWINGS AND/OR PROJECT SPECIFICATIONS.
- CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
- THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
- CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
- CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.
- NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

**GREENFIELD GROUNDING NOTES:**

- ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER GES'S) SHALL BE BONDED TOGETHER AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
- THE CONTRACTOR SHALL PERFORM IEEE FALL-OFF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS, THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
- THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT AND PROVIDE TESTING RESULTS.
- METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
- METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
- EACH CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 BARE SOLID TINNED COPPER FOR OUTDOOR BTS.
- CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BUS ARE PERMITTED.
- ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
- ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
- USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
- EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
- ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
- COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
- ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
- APPROVED ANTIOXIDANT COATINGS (i.e. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
- ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
- MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
- BOND ALL METALLIC OBJECTS WITHIN 6 FT. OF MAIN GROUND RING WITH (1) #2 BARE SOLID TINNED COPPER GROUND CONDUCTOR.
- GROUND CONDUCTORS USED FOR THE FACILITY GROUNDING AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (i.e., NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
- ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 BARE SOLID TINNED COPPER IN 3/4" NON-METALLIC, FLEXIBLE CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD-WELD TERMINATION POINT. THE EXPOSED END OF THE CONDUIT MUST BE SEALED WITH SILICONE CAULK. (ADD TRANSITIONING GROUND STANDARD DETAIL AS WELL).
- BUILDINGS WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM, THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY).

**GENERAL NOTES:**

- FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:  
CONTRACTOR: GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION  
CARRIER: T-MOBILE  
TOWER OWNER: CROWN CASTLE USA INC.
- THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE ENGINEERS IN THIS OR SIMILAR LOCALITIES. IT IS ASSUMED THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKPEOPLE WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.
- THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY FOR PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, FORMWORK, SHORING, ETC. SITE VISITS BY THE ENGINEER OR HIS REPRESENTATIVE WILL NOT INCLUDE INSPECTION OF THESE ITEMS AND IS FOR STRUCTURAL OBSERVATION OF THE FINISHED STRUCTURE ONLY.
- NOTES AND DETAILS IN THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, AND/OR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL NOTES, AND SPECIFICATIONS, THE GREATER, MORE STRICT REQUIREMENTS, SHALL GOVERN. IF FURTHER CLARIFICATION IS REQUIRED CONTACT THE ENGINEER OF RECORD.
- SUBSTANTIAL EFFORT HAS BEEN MADE TO PROVIDE ACCURATE DIMENSIONS AND MEASUREMENTS ON THE DRAWINGS TO ASSIST IN THE FABRICATION AND/OR PLACEMENT OF CONSTRUCTION ELEMENTS BUT IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE DIMENSIONS, MEASUREMENTS, AND/OR CLEARANCES SHOWN IN THE CONSTRUCTION DRAWINGS PRIOR TO FABRICATION OR CUTTING OF ANY NEW OR EXISTING CONSTRUCTION ELEMENTS. IF IT IS DETERMINED THAT THERE ARE DISCREPANCIES AND/OR CONFLICTS WITH THE CONSTRUCTION DRAWINGS THE ENGINEER OF RECORD IS TO BE NOTIFIED AS SOON AS POSSIBLE.
- PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CROWN CASTLE.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CARRIER AND CROWN CASTLE PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
- CONTRACTOR IS TO PERFORM A SITE INVESTIGATION AND IS TO DETERMINE THE BEST ROUTING OF ALL CONDUITS FOR POWER, AND TELCO AND FOR GROUNDING CABLES AS SHOWN IN THE POWER, TELCO, AND GROUNDING PLAN DRAWINGS.
- THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF CROWN CASTLE USA INC.
- CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
- CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

**CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:**

- ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.
- UNLESS NOTED OTHERWISE, SOIL BEARING PRESSURE USED FOR DESIGN OF SLABS AND FOUNDATIONS IS ASSUMED TO BE 1000 psf.
- ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'c) OF 3000 psi AT 28 DAYS, UNLESS NOTED OTHERWISE. NO MORE THAN 90 MINUTES SHALL ELAPSE FROM BATCH TIME TO TIME OF PLACEMENT UNLESS APPROVED BY THE ENGINEER OF RECORD. TEMPERATURE OF CONCRETE SHALL NOT EXCEED 90°F AT TIME OF PLACEMENT.
- CONCRETE EXPOSED TO FREEZE-THAW CYCLES SHALL CONTAIN AIR ENTRAINING ADMIXTURES. AMOUNT OF AIR ENTRAINMENT TO BE BASED ON SIZE OF AGGREGATE AND F3 CLASS EXPOSURE (VERY SEVERE). CEMENT USED TO BE TYPE II PORTLAND CEMENT WITH A MAXIMUM WATER-TO-CEMENT RATIO (W/C) OF 0.45.
- ALL STEEL REINFORCING SHALL CONFORM TO ASTM A615. ALL WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185. ALL SPLICES SHALL BE CLASS "B" TENSION SPLICES, UNLESS NOTED OTHERWISE. ALL HOOKS SHALL BE STANDARD 90 DEGREE HOOKS, UNLESS NOTED OTHERWISE. YIELD STRENGTH (Fy) OF STANDARD DEFORMED BARS ARE AS FOLLOWS:  
#4 BARS AND SMALLER.....40 ksi  
#5 BARS AND LARGER.....60 ksi
- THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:  
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH.....3"  
CONCRETE EXPOSED TO EARTH OR WEATHER:  
#6 BARS AND LARGER.....2"  
#5 BARS AND SMALLER.....1-1/2"  
CONCRETE NOT EXPOSED TO EARTH OR WEATHER:  
SLAB AND WALLS.....3/4"  
BEAMS AND COLUMNS.....1-1/2"
- A TOOLED EDGE OR A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

**ELECTRICAL INSTALLATION NOTES:**

- ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.
- CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.
- WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
- ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.  
4.1. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.  
4.2. ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 22,000 AIC MINIMUM. VERIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT ADOPTED CODE PRE THE GOVERNING JURISDICTION.
- EACH END OF EVERY POWER PHASE CONDUCTOR, GROUNDING CONDUCTOR, AND TELCO CONDUCTOR OR CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA.
- ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH LAMICOID TAGS SHOWING THEIR RATED VOLTAGE, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (i.e. PANEL BOARD AND CIRCUIT ID'S).
- PANEL BOARDS (ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.
- ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
- ALL POWER AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE COPPER CONDUCTOR (#14 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
- SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE COPPER CONDUCTOR (#6 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
- POWER AND CONTROL WIRING IN FLEXIBLE CORD SHALL BE MULTI-CONDUCTOR, TYPE SOOW CORD (#14 OR LARGER) UNLESS OTHERWISE SPECIFIED.
- POWER AND CONTROL WIRING FOR USE IN CABLE TRAY SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 OR LARGER), WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
- ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION NOT LESS THAN 75° C (90° C IF AVAILABLE).
- RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEC AND NEC.
- ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METAL CONDUIT (IMC), OR RIGID METAL CONDUIT (RMC) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
- ELECTRICAL METALLIC TUBING (EMT) OR METAL-CLAD CABLE (MC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
- SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWS/90s AND ALL APPROVED ABOVE GRADE PVC CONDUIT.
- LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
- CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET NEW FITTINGS ARE NOT ACCEPTABLE.
- CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEC AND THE NEC.
- WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS (WIREMOLD SPECIMATE WIREWAY).
- SLOTTED WIRING CTRT SHALL BE PVC AND INCLUDE COVER (PANDUIT TYPE E OR EQUAL).
- CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON-PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES (i.e. POWDER-ACTUATED) FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED FLUSH TO FINISH GRADE TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.
- EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL. SHALL MEET OR EXCEED UL 50 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND NEMA 3R (OR BETTER) FOR EXTERIOR LOCATIONS.
- METAL RECEPTACLE, SWITCH AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
- NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2 (NEWEST REVISION) AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
- THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CARRIER AND/OR CROWN CASTLE USA INC. BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
- THE CONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD LIFE AND PROPERTY.
- INSTALL LAMICOID LABEL ON THE METER CENTER TO SHOW "T-MOBILE".
- ALL EMPTY/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.

CONDUCTOR COLOR CODE		
SYSTEM	CONDUCTOR	COLOR
120/240V, 1Ø	A PHASE	BLACK
	B PHASE	RED
	NEUTRAL	WHITE
120/208V, 3Ø	GROUND	GREEN
	A PHASE	BLACK
	B PHASE	RED
	C PHASE	BLUE
	NEUTRAL	WHITE
277/480V, 3Ø	GROUND	GREEN
	A PHASE	BROWN
	B PHASE	ORANGE OR PURPLE
	C PHASE	YELLOW
	NEUTRAL	GREY
DC VOLTAGE	GROUND	GREEN
	POS (+)	RED**
	NEG (-)	BLACK**

\* SEE NEC 210.5(C)(1) AND (2)  
\*\* POLARITY MARKED AT TERMINATION

**ABBREVIATIONS:**

ANT	ANTENNA
(E)	EXISTING
FIF	FACILITY INTERFACE FRAME
GEN	GENERATOR
GPS	GLOBAL POSITIONING SYSTEM
GSM	GLOBAL SYSTEM FOR MOBILE
LTE	LONG TERM EVOLUTION
MGB	MASTER GROUND BAR
MW	MICROWAVE
(N)	NEW
NEC	NATIONAL ELECTRIC CODE
(P)	PROPOSED
PP	POWER PLAN
QTY	QUANTITY
RECT	RECTIFIER
RBS	RADIO BASE STATION
RETS	REMOTE ELECTRIC TILT
RFDS	RADIO FREQUENCY DATA SHEET
RRH	REMOTE RADIO HEAD
RRU	REMOTE RADIO UNIT
SIAD	SMART INTEGRATED DEVICE
TMA	TOWER MOUNTED AMPLIFIER
TYP	TYPICAL
UMTS	UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM
W.P.	WORK POINT

**APWA UNIFORM COLOR CODE:**

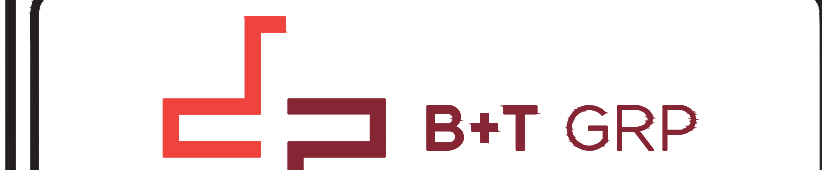
<span style="border: 1px solid black; padding: 2px;">WHITE</span>	PROPOSED EXCAVATION
<span style="border: 1px solid black; padding: 2px;">PINK</span>	TEMPORARY SURVEY MARKINGS
<span style="border: 1px solid black; padding: 2px;">RED</span>	ELECTRIC POWER LINES, CABLES, CONDUIT, AND LIGHTING CABLES
<span style="border: 1px solid black; padding: 2px;">YELLOW</span>	GAS, OIL, STEAM, PETROLEUM, OR GASEOUS MATERIALS
<span style="border: 1px solid black; padding: 2px;">ORANGE</span>	COMMUNICATION, ALARM OR SIGNAL LINES, CABLES, OR CONDUIT AND TRAFFIC LOOPS
<span style="border: 1px solid black; padding: 2px;">BLUE</span>	POTABLE WATER
<span style="border: 1px solid black; padding: 2px;">PURPLE</span>	RECLAIMED WATER, IRRIGATION, AND SLURRY LINES
<span style="border: 1px solid black; padding: 2px;">GREEN</span>	SEWERS AND DRAIN LINES



35 GRIFFIN ROAD  
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3 CORPORATE PARK DRIVE, SUITE 101  
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SUITE 300  
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PH: (918) 587-4630  
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**T-MOBILE SITE NUMBER:  
CT11269B**

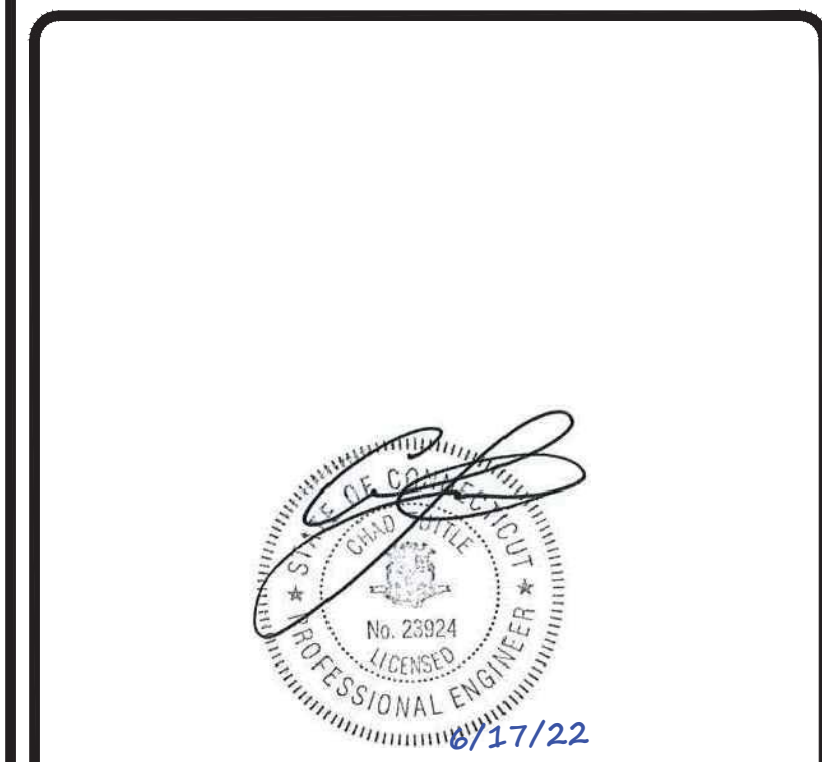
**BU #: 876317  
WATERBURY**

**150 MATTATUCK HEIGHTS  
WATERBURY, CT 06705**

**EXISTING  
143'-0" MONOPOLE**

**ISSUED FOR:**

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	6/2/22	GAC	PRELIMINARY REVIEW	LR
0	6/17/22	GAC	CONSTRUCTION	LR



MTS ENGINEERING P.L.L.C.  
BER:2386985  
Expires 3/31/23

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**SHEET NUMBER: T-2**      **REVISION: 0**



**SITE PLAN DISCLAIMER:**  
 PROPERTY LINES AND STRUCTURES HAVE BEEN DIGITIZED FROM PREVIOUS PLAN SETS. CROWN CASTLE USA INC. HAS NOT COMPLETED A SITE SURVEY AND THEREFORE MAKES NO CLAIMS AS TO THE ACCURACY OF INFORMATION DEPICTED ON THIS SHEET.



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**1** OVERALL SITE PLAN  
 SCALE: 1" = 50'-0" (FULL SIZE)  
 1" = 100'-0" (11x17)

**SHEET NUMBER:**  
**C-1.1**

**REVISION:**  
**0**



**NOTES:**  
 THE POWER DESIGN FOR ANY AC ELECTRICAL POWER CHANGES IS TO BE PERFORMED BY OTHERS AND IS SHOWN HERE FOR REFERENCE PURPOSES ONLY. T-MOBILE IS SOLELY RESPONSIBLE FOR THE ELECTRICAL POWER DESIGN.

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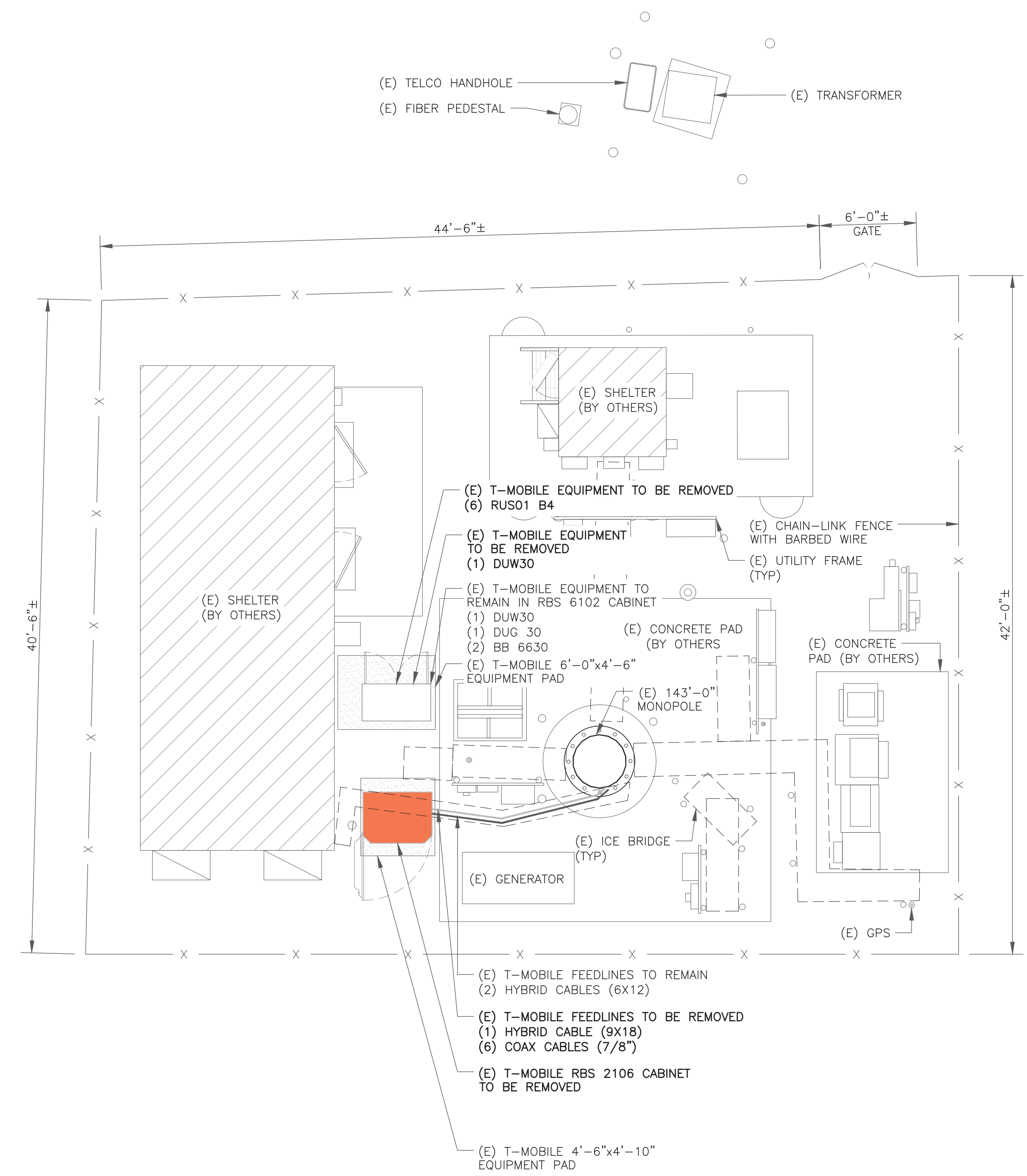
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**CT11269B**  
 BU #: **876317**  
**WATERBURY**  
 150 MATTATUCK HEIGHTS  
 WATERBURY, CT 06705  
 EXISTING  
 143'-0" MONOPOLE

**ISSUED FOR:**

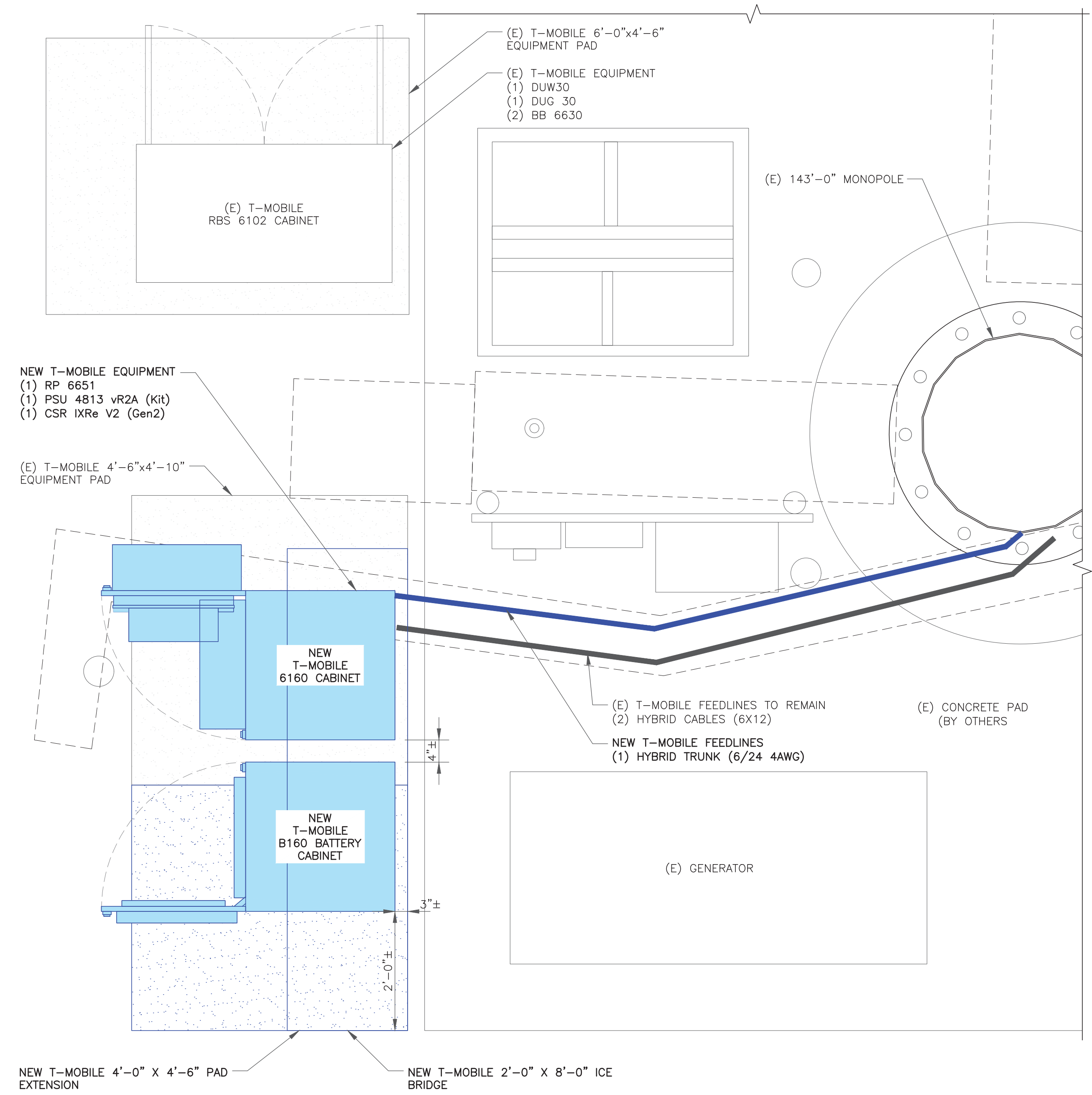
REV	DATE	DRWN	DESCRIPTION	DES./QA
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0	6/17/22	GAC	CONSTRUCTION	LR

  
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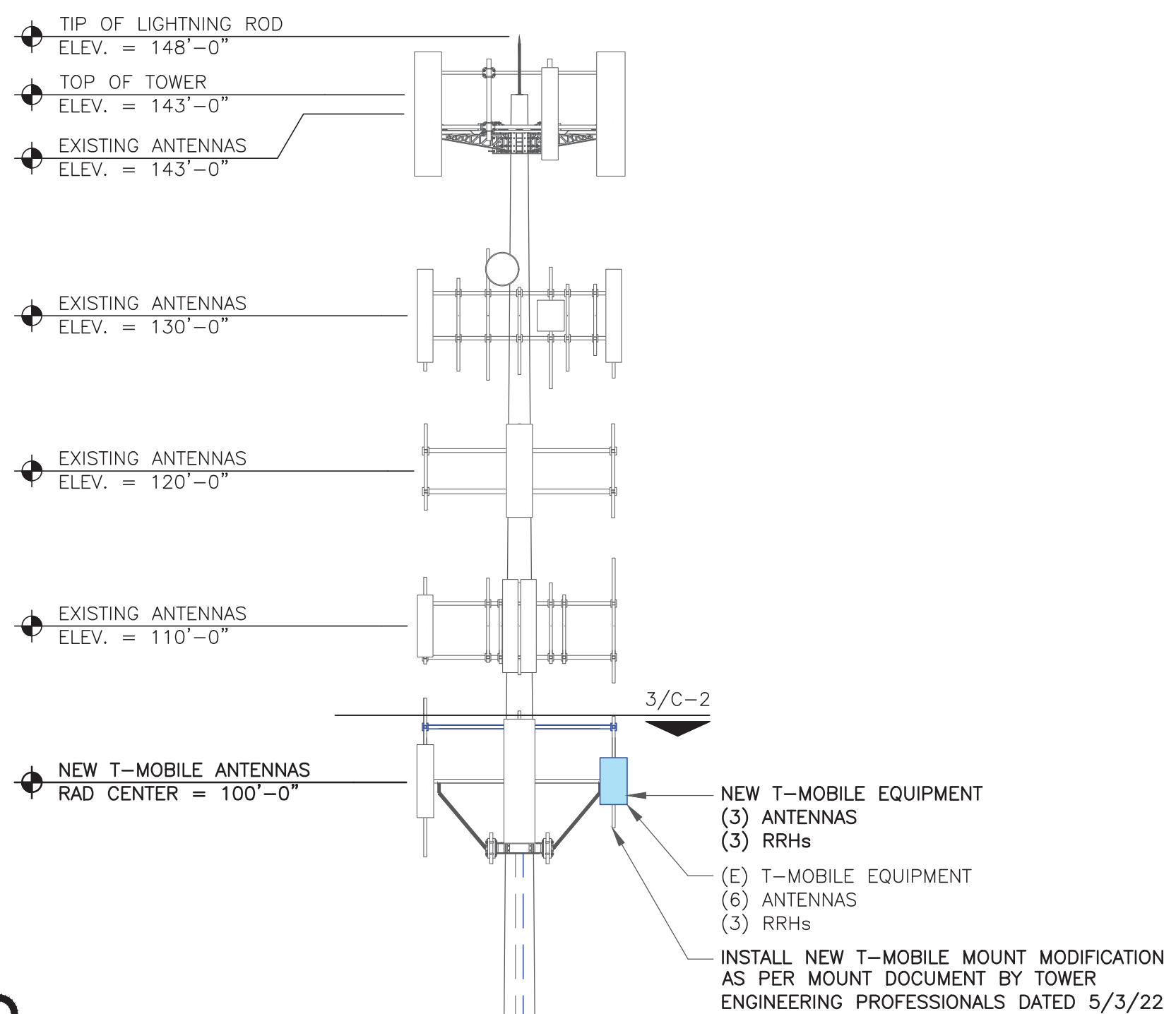


**1 SITE PLAN**  
 SCALE: 3/16"=1'-0" (FULL SIZE)  
 3/32"=1'-0" (11x17)



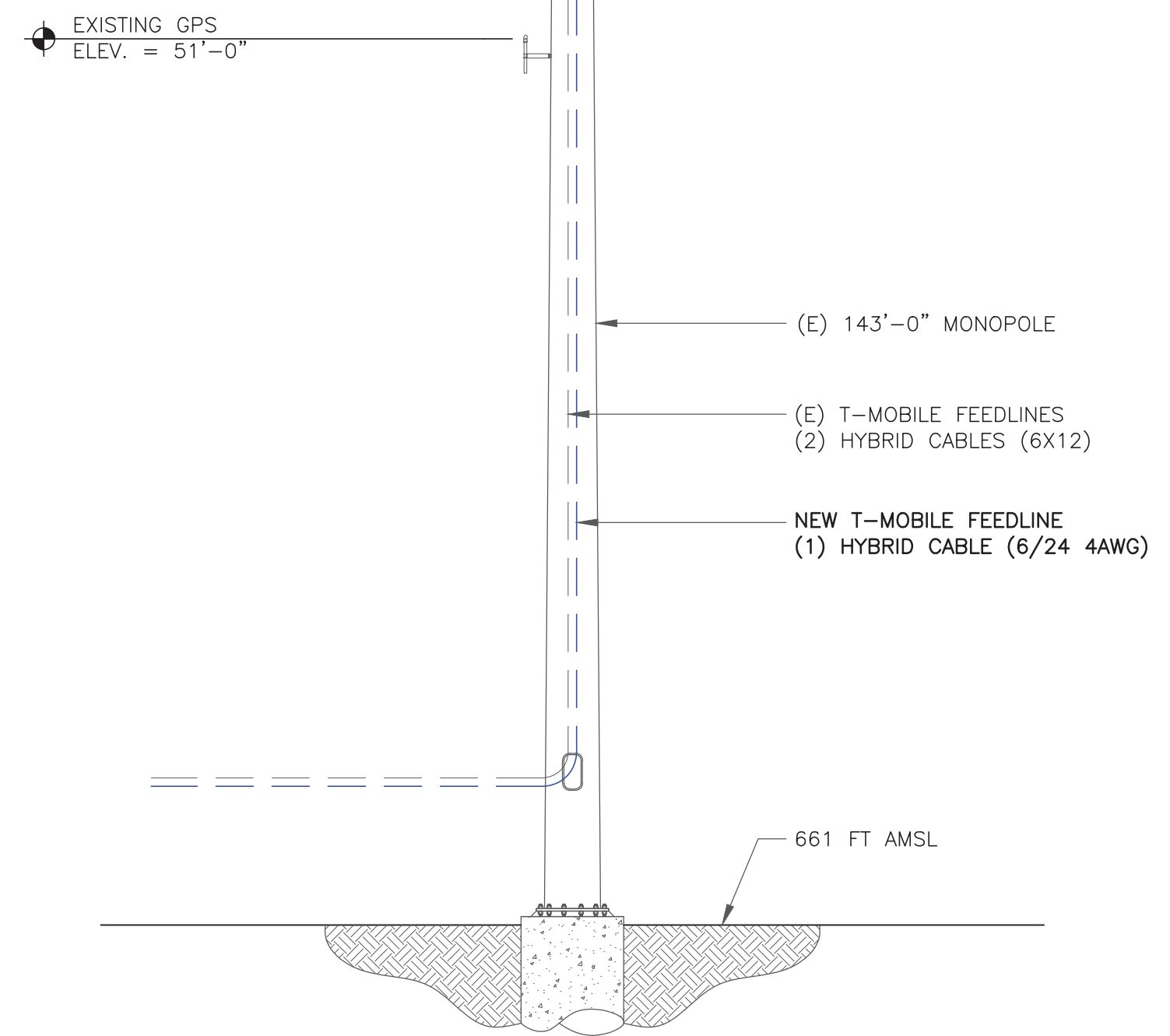
**2 ENLARGED SITE PLAN**  
 SCALE: 3/4"=1'-0" (FULL SIZE)  
 3/8"=1'-0" (11x17)



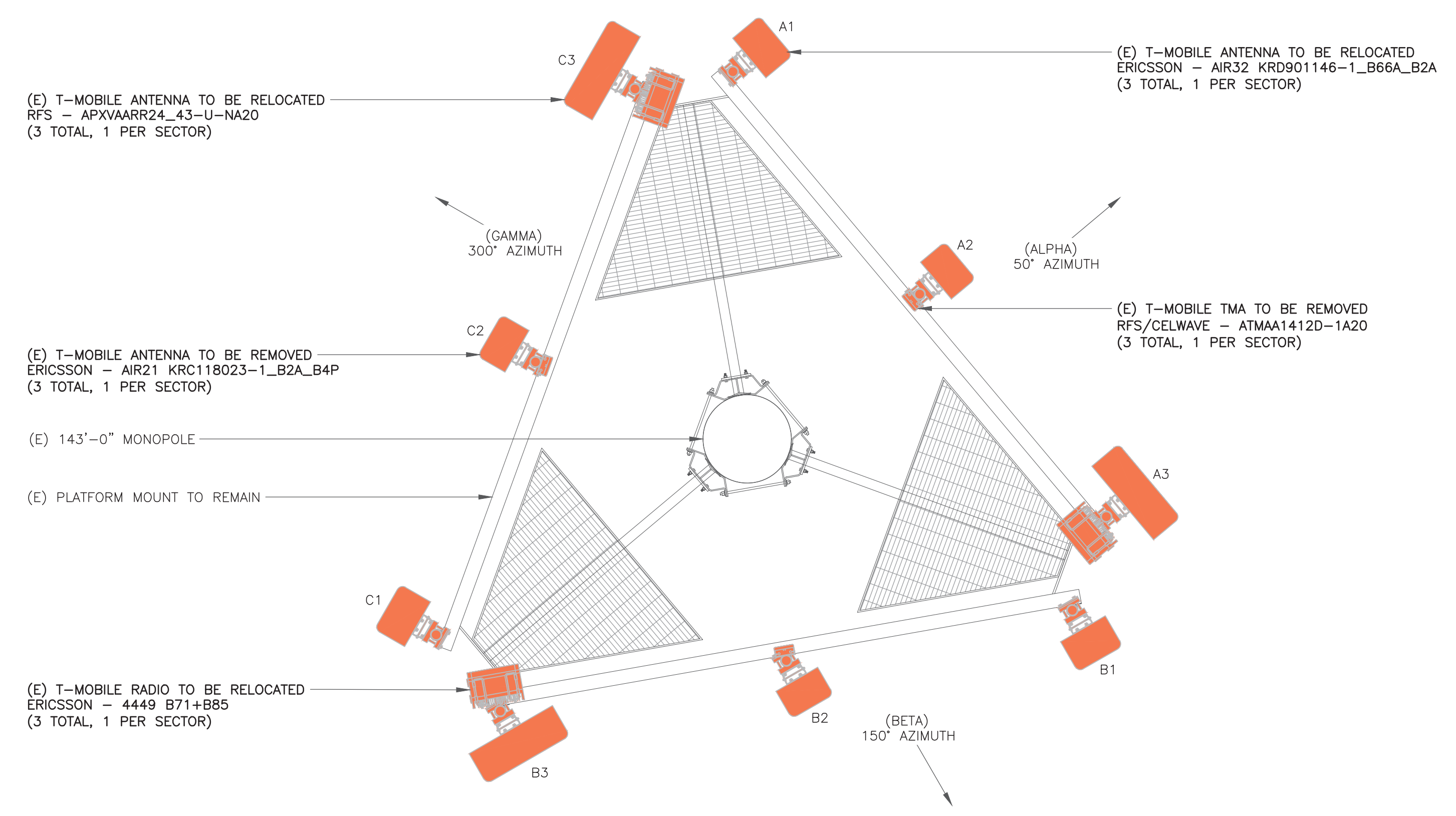


**T-MOBILE EQUIPMENT**  
ANTENNA CL: 100'-0"  
MOUNT CL: 100'-0"

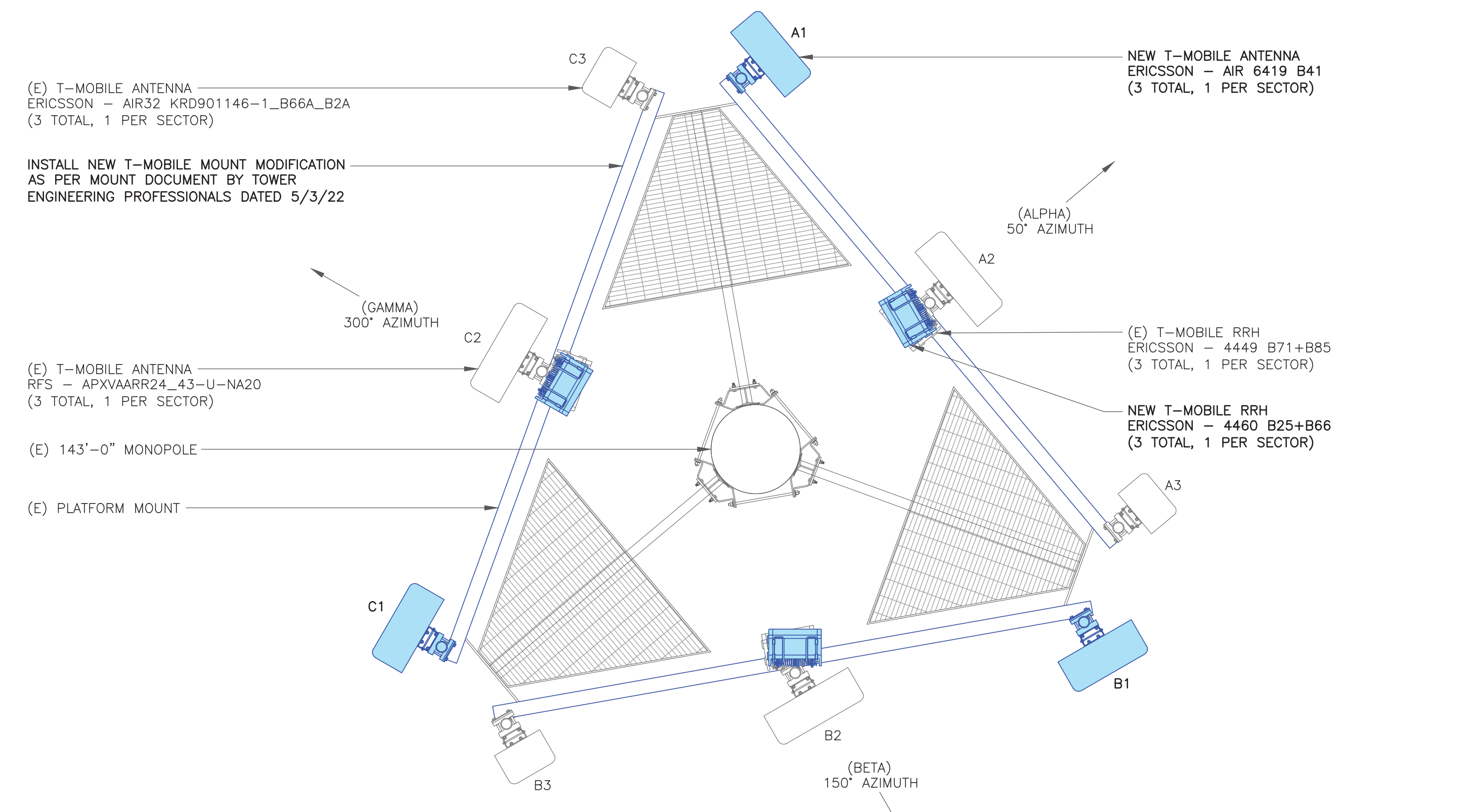
ANY AND ALL TOWER MOUNTED EQUIPMENT MUST NOT TRAP OR INTERFERE W/ EXISTING SAFETY CLIMB



1 FINAL ELEVATION  
SCALE: NOT TO SCALE



2 EXISTING ANTENNA LAYOUT  
SCALE: 1/2" = 1'-0"



3 FINAL ANTENNA LAYOUT  
SCALE: NOT TO SCALE

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T-MOBILE SITE NUMBER:  
**CT11269B**

BU #: 876317  
**WATERBURY**

150 MATTATUCK HEIGHTS  
WATERBURY, CT 06705

EXISTING  
143'-0" MONOPOLE

**ISSUED FOR:**

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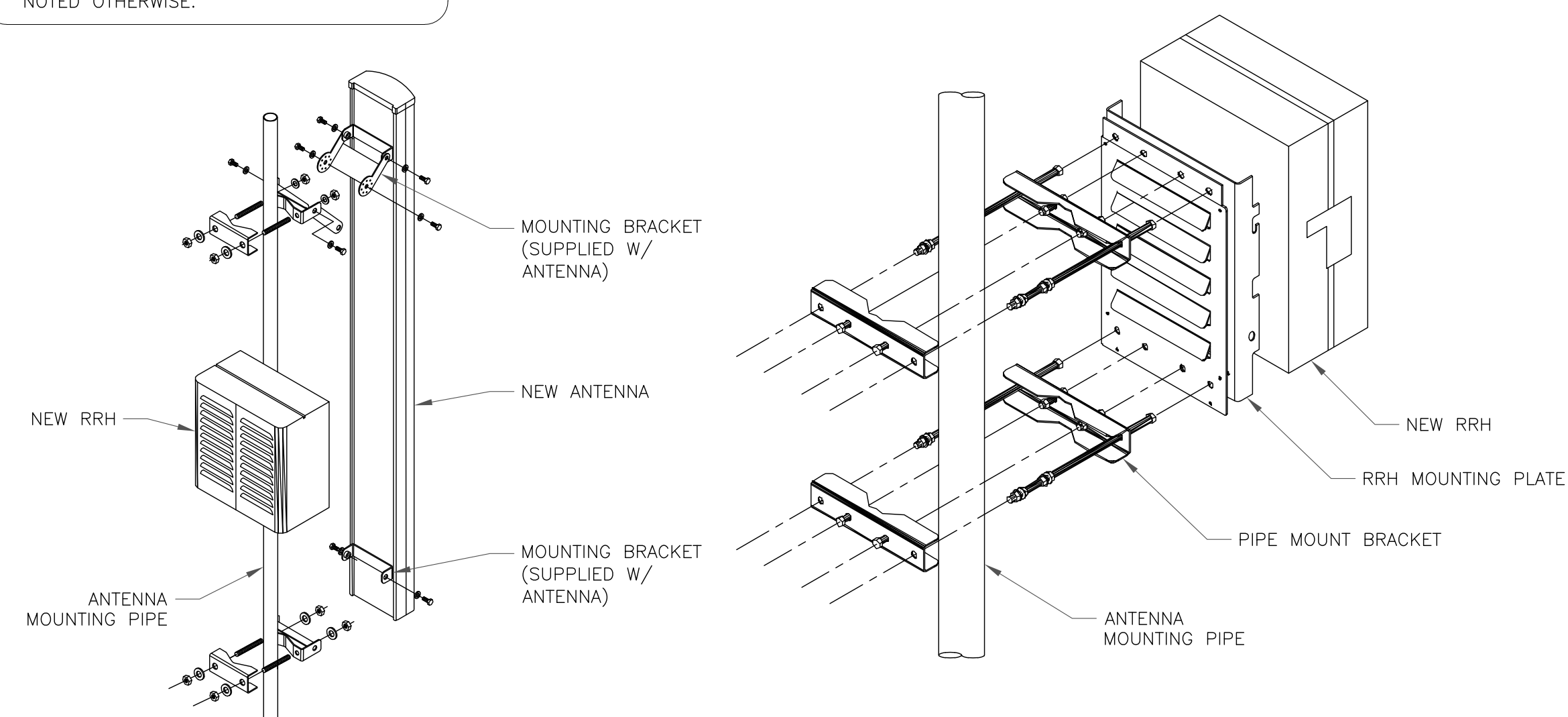
EXISTING  
143'-0" MONOPOLE

RF SYSTEM SCHEDULE										
SECTOR	ANTENNA	TECH	MANUFACTURER	ANTENNA MODEL	AZIMUTH	M-TILT	E-TILT	RAD CENTER	TMA/RRU	FEEDLINE TYPE
ALPHA	A1	N2500/L2500	ERICSSON	AIR 6419 B41	50°	0°	2°/2°	100'-0"	-	(1) HYBRID TRUNK 6/24 4AWG (2) 6x12 HCS
	A2	L700/L600/N600; L1900/U1900	RFS	APXVAARR24_43-U-NA20	50°	0°	2°/2°/2°/ 2°	100'-0"	ERICSSON - 4449 B71+B85 ERICSSON - 4460 B25+B66	
	A3	L2100; L1900/ G1900	ERICSSON	AIR32 KRD901146-1_B66A_B2A	50°	0°	2°/2°/2°/ 2°	100'-0"	-	
BETA	B1	N2500/L2500	ERICSSON	AIR 6419 B41	150°	0°	2°/2°	100'-0"	-	
	B2	L700/L600/N600; L1900/U1900	RFS	APXVAARR24_43-U-NA20	150°	0°	2°/2°/2°/ 2°	100'-0"	ERICSSON - 4449 B71+B85 ERICSSON - 4460 B25+B66	
	B3	L2100; L1900/ G1900	ERICSSON	AIR32 KRD901146-1_B66A_B2A	150°	0°	2°/2°/2°/ 2°	100'-0"	-	
GAMMA	C1	N2500/L2500	ERICSSON	AIR 6419 B41	300°	0°	2°/2°	100'-0"	-	
	C2	L700/L600/N600; L1900/U1900	RFS	APXVAARR24_43-U-NA20	300°	0°	2°/2°/2°/ 2°	100'-0"	ERICSSON - 4449 B71+B85 ERICSSON - 4460 B25+B66	
	C3	L2100; L1900/ G1900	ERICSSON	AIR32 KRD901146-1_B66A_B2A	300°	0°	2°/2°/2°/ 2°	100'-0"	-	

1 ANTENNA AND CABLE SCHEDULE  
SCALE: NOT TO SCALE

INSTALLER NOTES:

1. COMPLY WITH MANUFACTURERS INSTRUCTIONS TO ENSURE THAT ALL RRHs RECEIVE ELECTRICAL POWER WITHIN 24 HOURS OF BEING REMOVED FROM THE MANUFACTURER'S PACKAGING.
2. DO NOT OPEN RRH PACKAGES IN THE RAIN.
3. ALL PIPES, BRACKETS, AND MISCELLANEOUS HARDWARE TO BE GALVANIZED UNLESS NOTED OTHERWISE.



2 ANTENNA WITH RRH MOUNTING DETAIL  
SCALE: NOT TO SCALE

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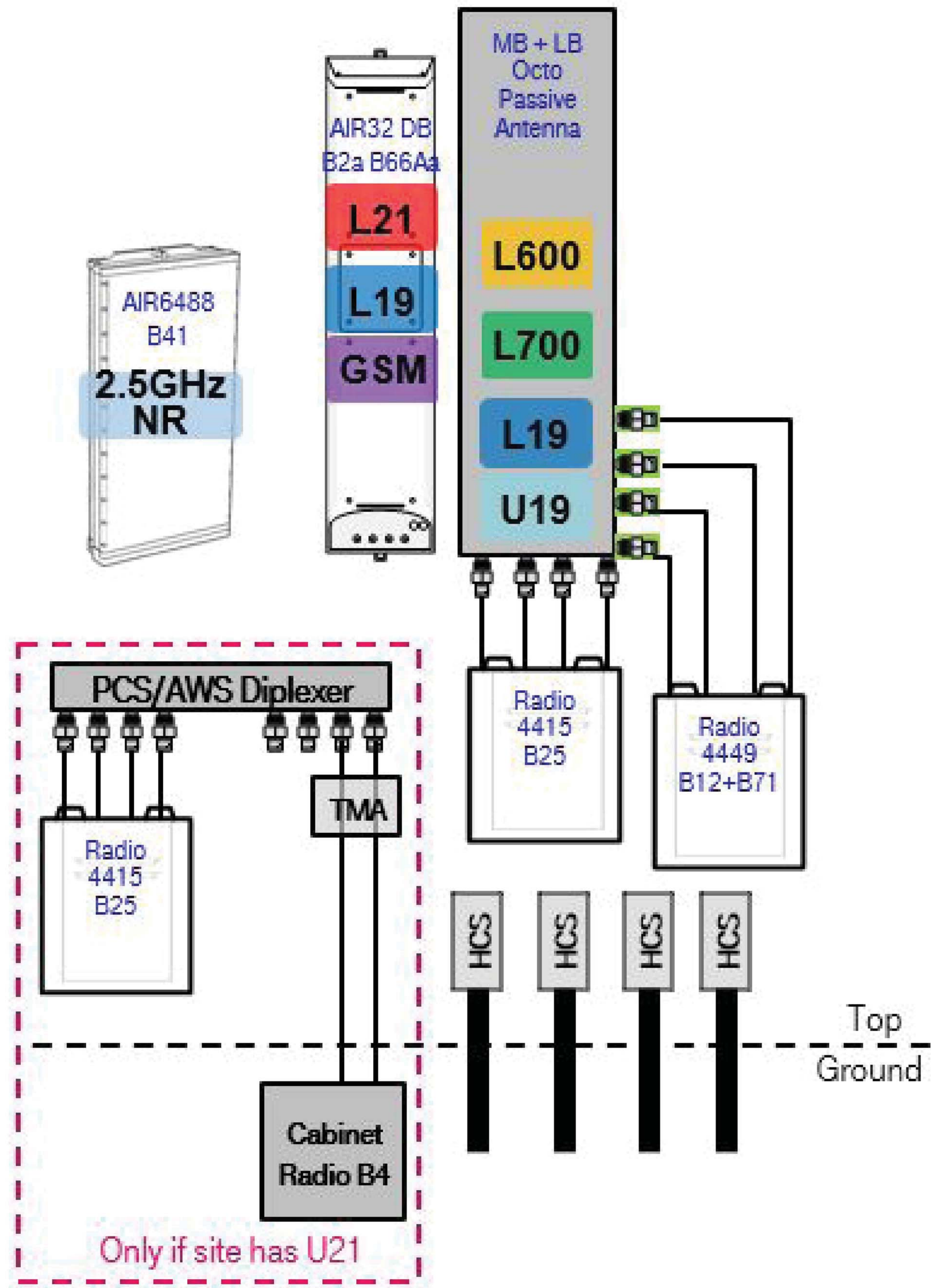
SHEET NUMBER:

**C-3**

REVISION:

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1 PLUMBING DIAGRAM  
SCALE: NOT TO SCALE

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T-MOBILE SITE NUMBER:  
CT11269B

BU #: 876317  
WATERBURY

150 MATTATUCK HEIGHTS  
WATERBURY, CT 06705

EXISTING  
143'-0" MONOPOLE

ISSUED FOR:

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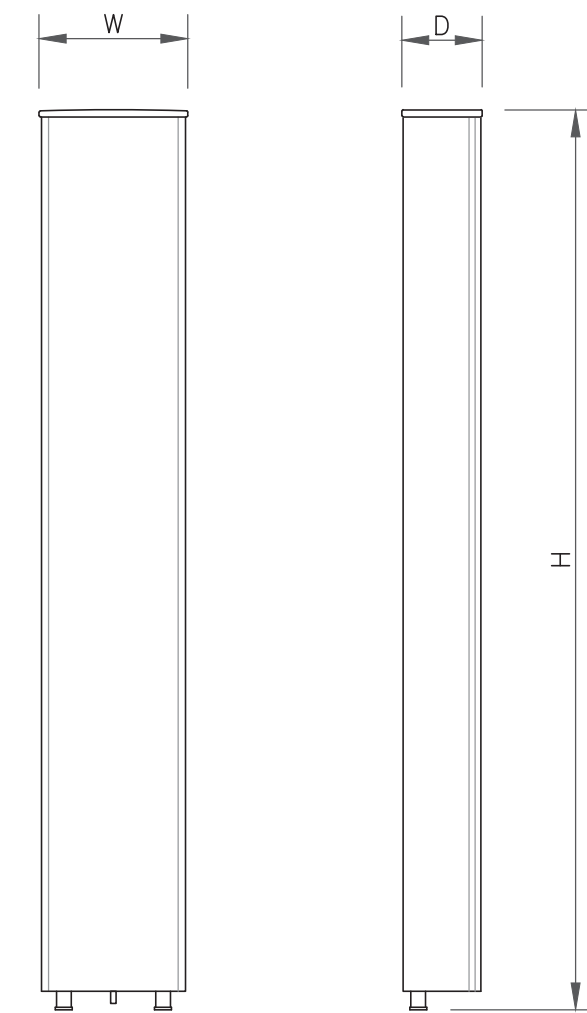
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C-4

REVISION:

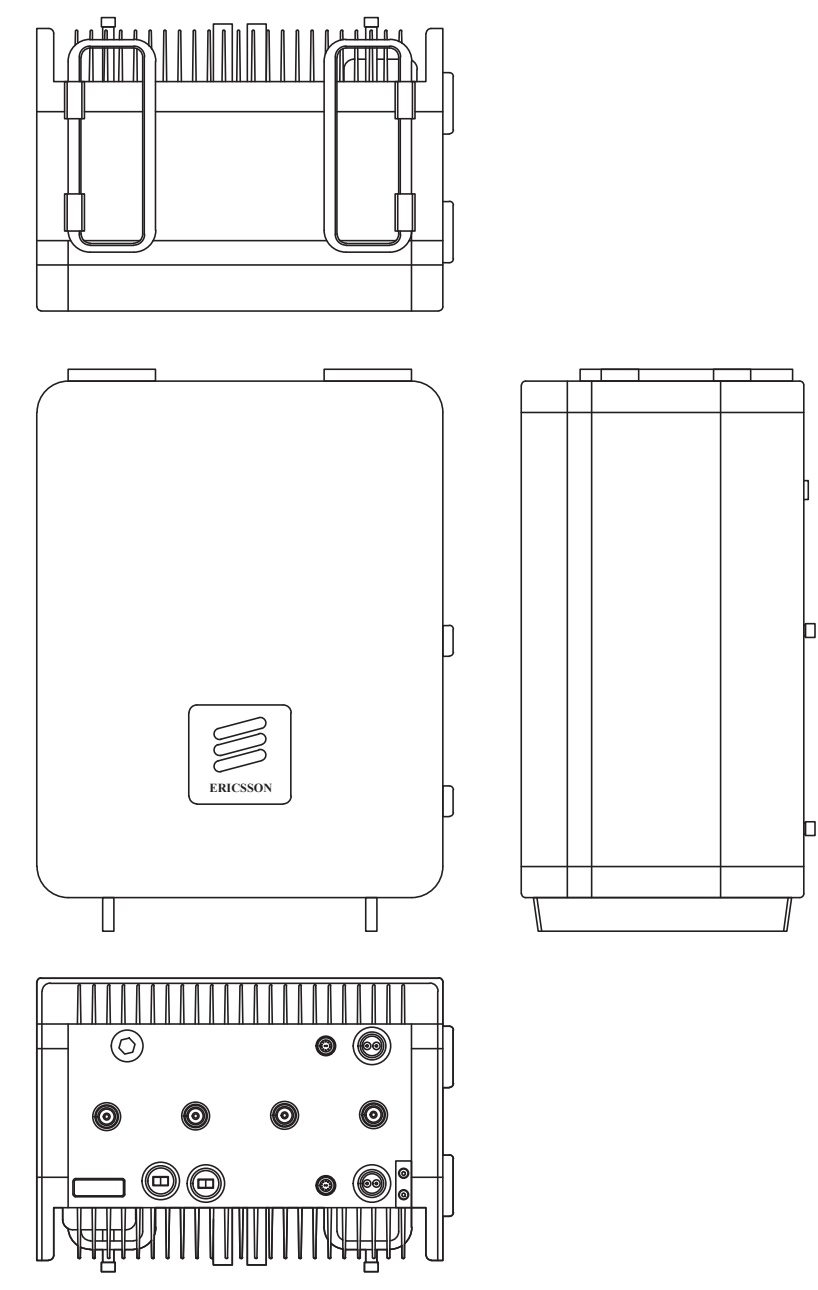
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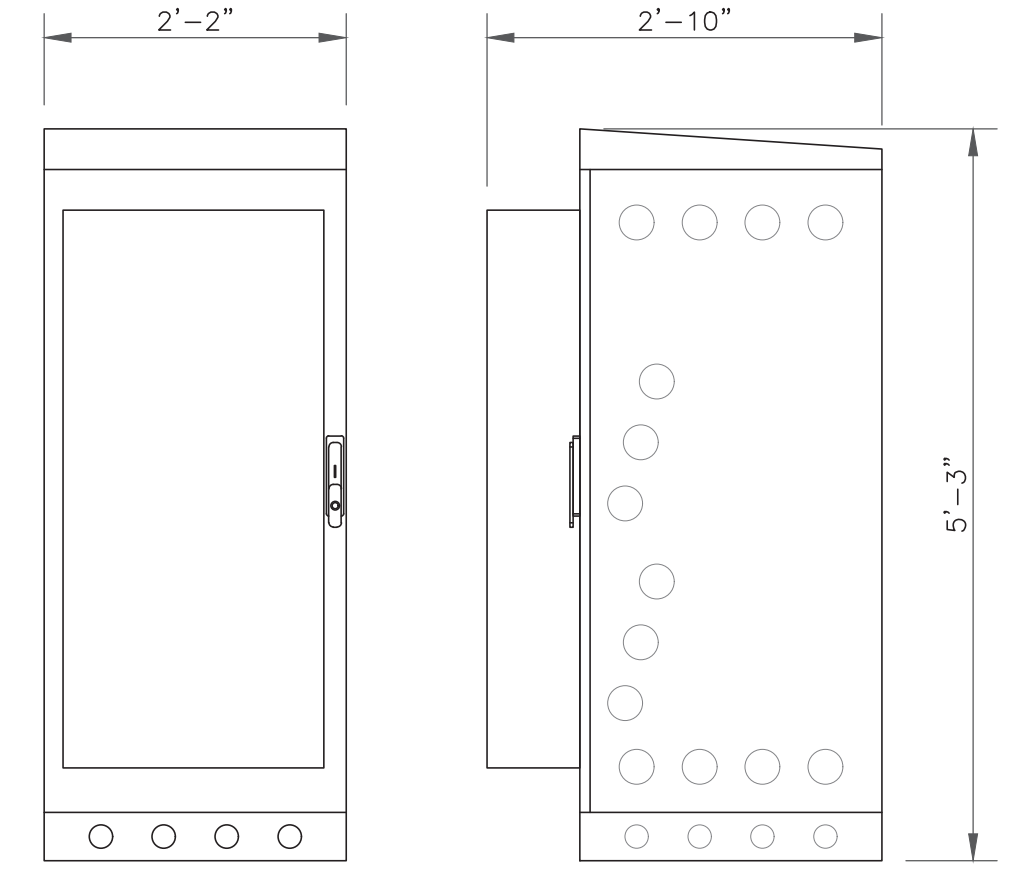
ANTENNA SPECS	
MANUFACTURER	ERICSSON
MODEL #	AIR 6419 B41
WIDTH	20.91"
DEPTH	9.02"
HEIGHT	36.25"
WEIGHT	96.5 LBS

1 ANTENNA SPECS  
SCALE: NOT TO SCALE



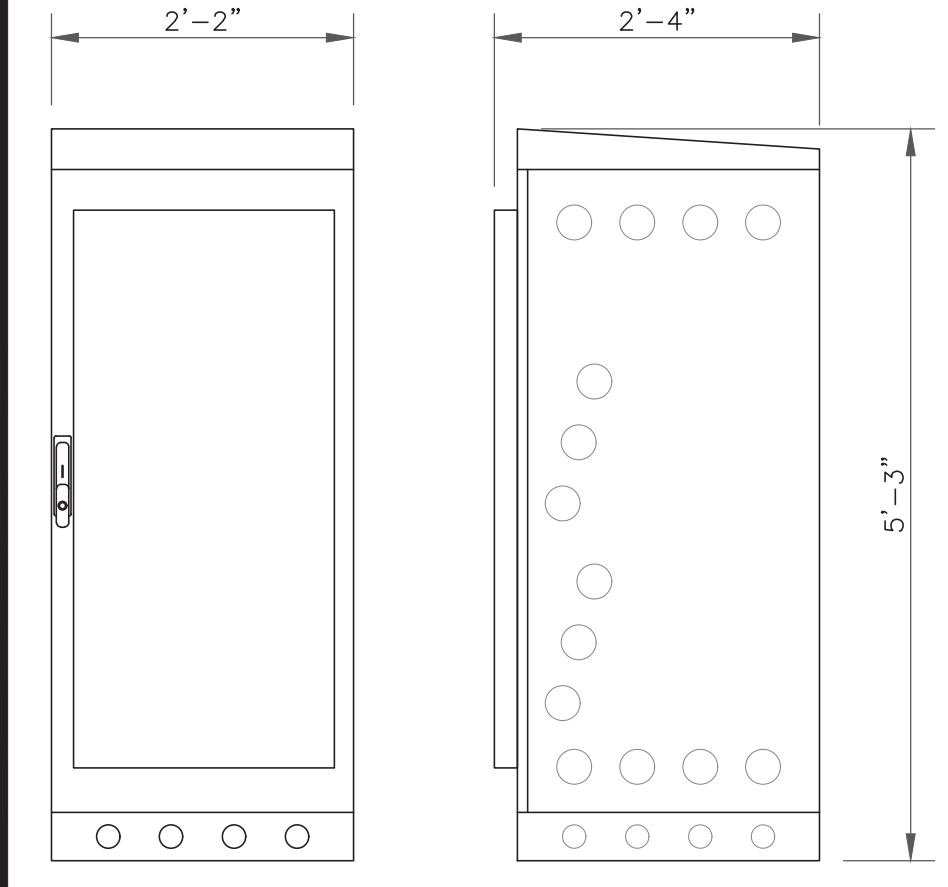
RRU SPECIFICATIONS	
MANUFACTURER	ERICSSON
MODEL #	4460 B25+B66
WIDTH	15.1"
DEPTH	11.9"
HEIGHT	17"
WEIGHT	109 LBS

2 RRU SPECS  
SCALE: NOT TO SCALE



EQUIPMENT NOTES:	
HEIGHTxWIDTHxDEPTH:	63.0" x 26.0" x 34.0" (1600.0mm x 660.0mm x 864.0mm)
WEIGHT (EMPTY):	320 LBS (145 kg)
WEIGHT (FULLY LOADED):	1000 LBS (454 kg)

3 ERICSSON - 6160  
SCALE: NOT TO SCALE



EQUIPMENT NOTES:	
HEIGHTxWIDTHxDEPTH:	63.0" x 26.0" x 28.0" (1600.0mm x 660.0mm x 711.0mm)
WEIGHT (EMPTY):	295 LBS (134 kg)
WEIGHT (FULLY LOADED):	2000 LBS (908 kg)

4 ERICSSON - B160  
SCALE: NOT TO SCALE

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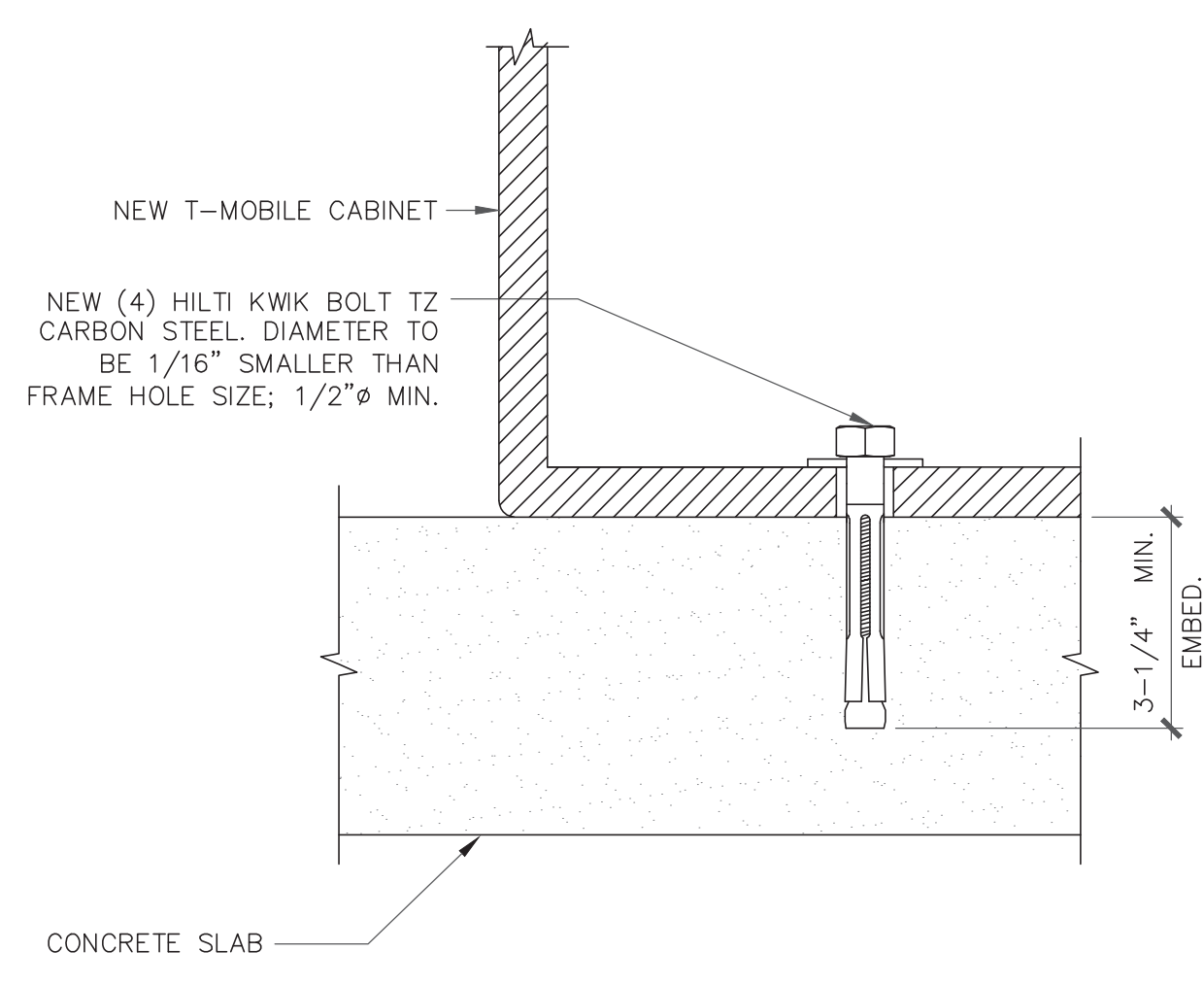
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**CT11269B**

BU #: **876317**  
**WATERBURY**

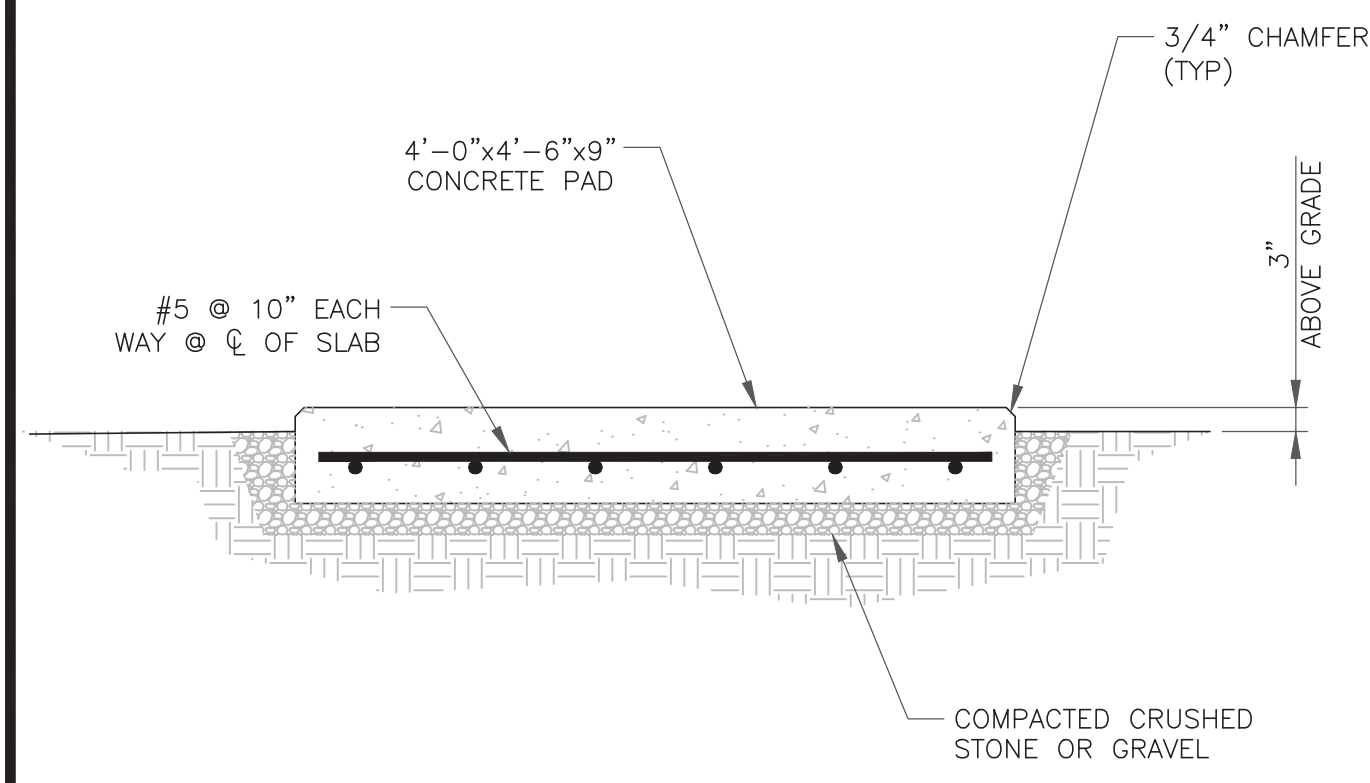
150 MATTATUCK HEIGHTS  
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EXISTING  
143'-0" MONOPOLE

ISSUED FOR:				
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0	6/17/22	GAC	CONSTRUCTION	LR



5 CABINET ANCHOR DETAIL  
SCALE: NOT TO SCALE



- NOTES:
- FOR CONCRETE NOTES SEE T-2.
  - GRAVEL SHALL BE NATURAL OR CRUSHED STONE WITH 100 PERCENT PASSING 1 INCH SIEVE.
  - ALL REINFORCING TO MAINTAIN 3" COVER WHEN CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH.

6 CAST IN PLACE CONCRETE PAD  
SCALE: NOT TO SCALE

7 NOT USED  
SCALE: NOT TO SCALE

8 NOT USED  
SCALE: NOT TO SCALE



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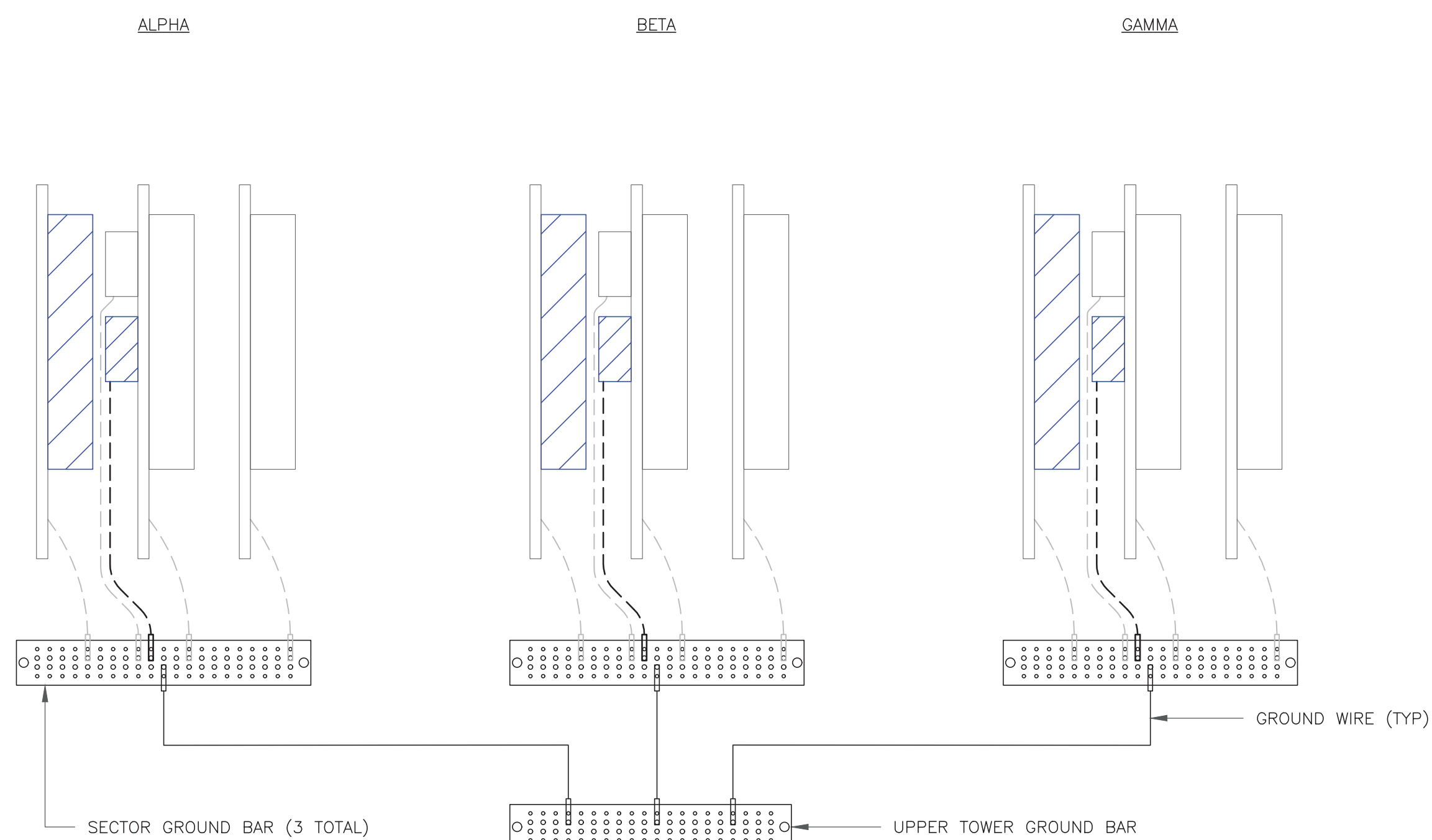
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EXISTING  
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ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	6/2/22	GAC	PRELIMINARY REVIEW	LR
0	6/17/22	GAC	CONSTRUCTION	LR



NOTE:  
ALL NEW GROUNDS TO BE #6 STRANDED  
COPPER WITH GREEN INSULATION UNLESS  
NOTED OTHERWISE.

1 ANTENNA GROUNDING DIAGRAM  
SCALE: NOT TO SCALE

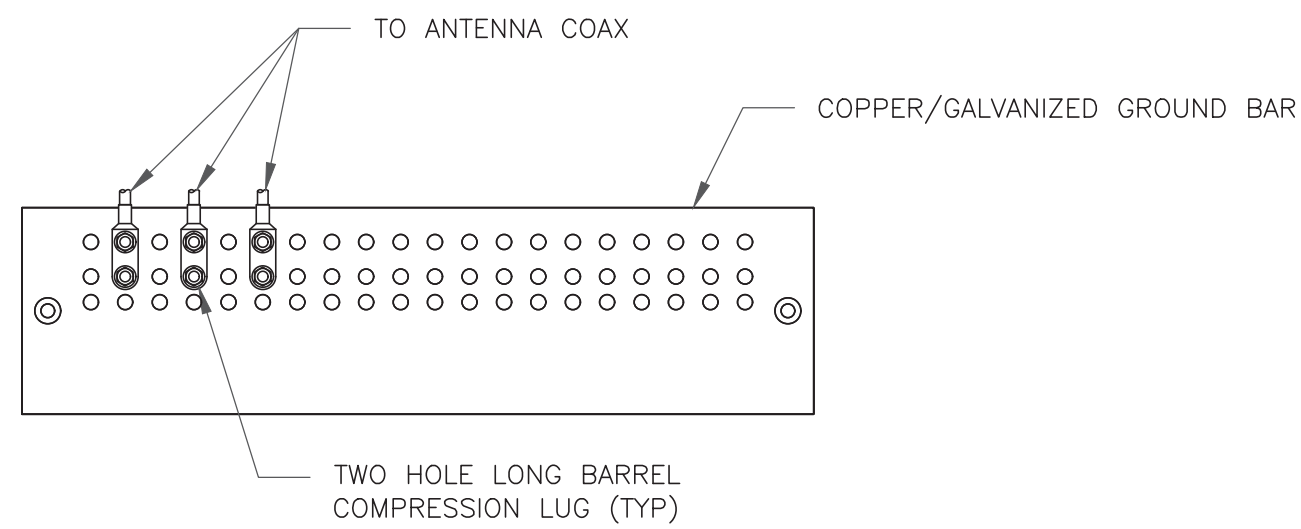


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BER:2386985  
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SHEET NUMBER: **G-1** REVISION: **0**

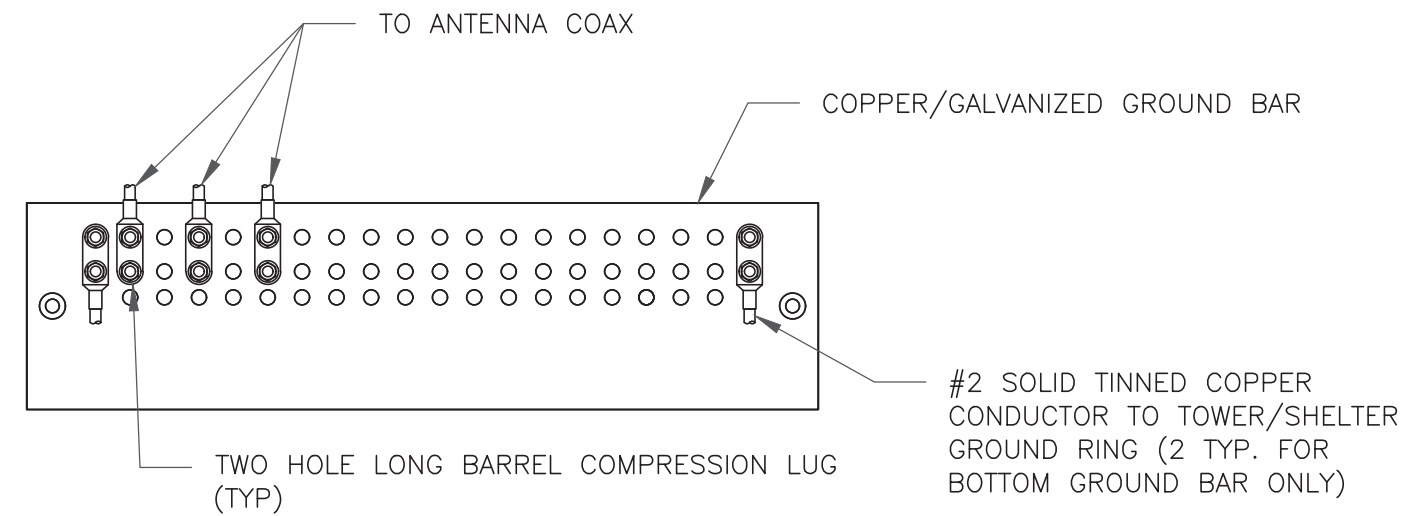




NOTES:

- DOUBLING UP "OR STACKING" OF CONNECTIONS IS NOT PERMITTED.
- EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
- GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO ANTENNA MOUNT STEEL.

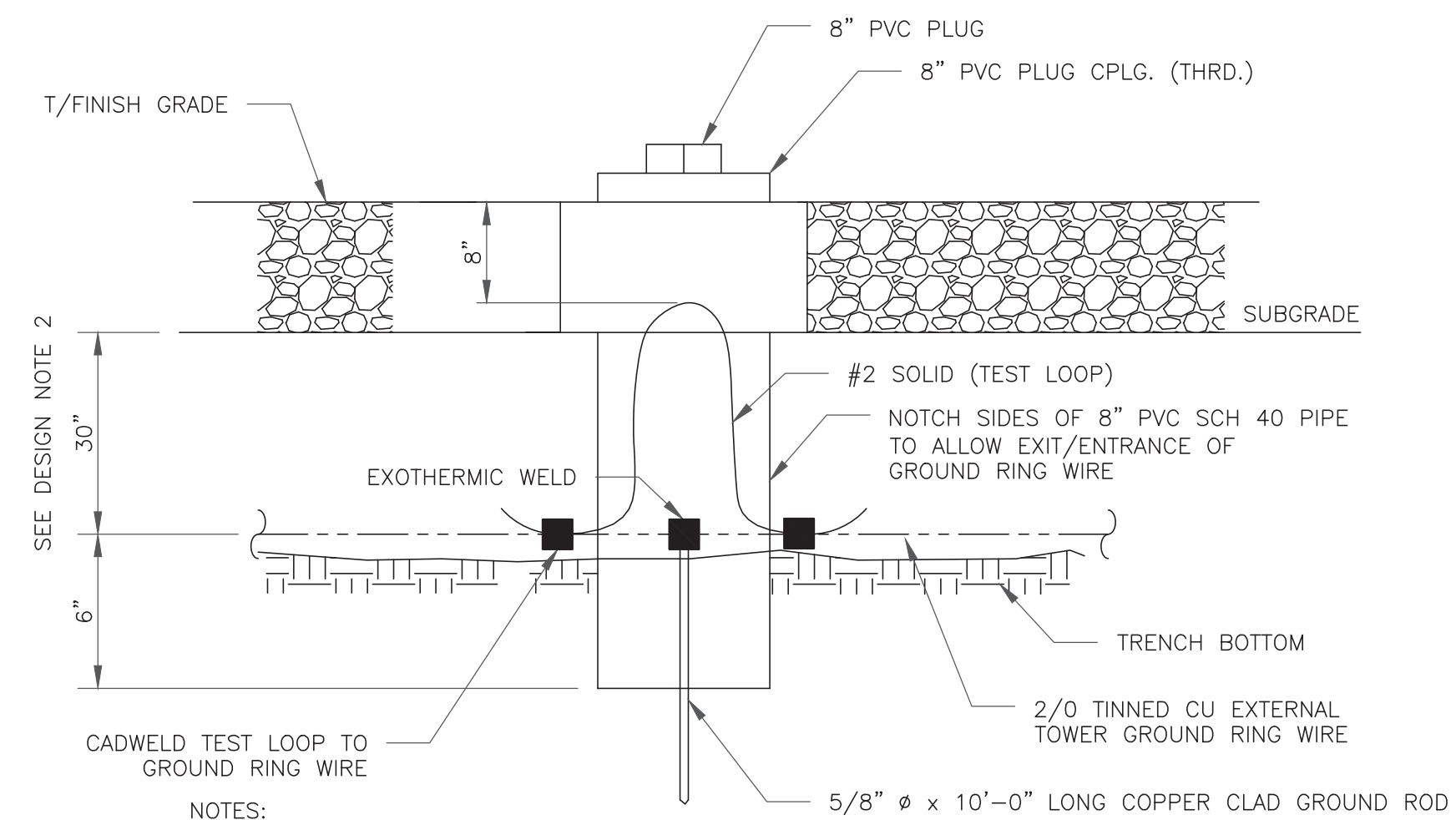
1 ANTENNA SECTOR GROUND BAR DETAIL  
SCALE: NOT TO SCALE



NOTES:

- EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
- GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO TOWER STEEL (TOWER ONLY).
- GROUND BAR SHALL BE ISOLATED FROM BUILDING OR SHELTER.

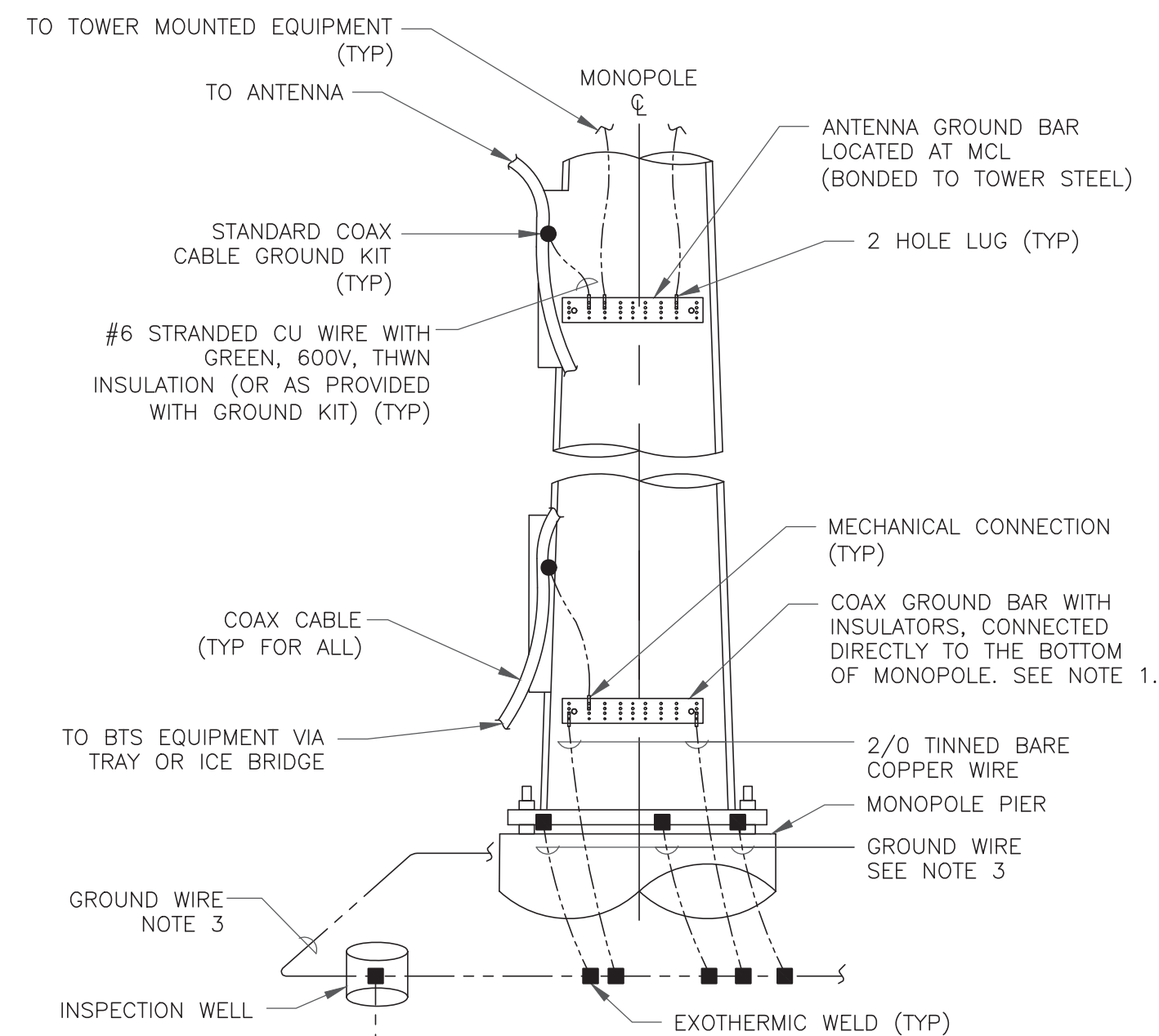
2 TOWER/SHELTER GROUND BAR DETAIL  
SCALE: NOT TO SCALE



NOTES:

- GROUND ROD SHALL BE DRIVEN VERTICALLY, NOT TO EXCEED 45 DEGREES FROM THE VERTICAL
- GROUND WIRE SHALL BE MIN. 30" BELOW GRADE OR 6" BELOW FROST LINE. (WHICH EVER IS GREATER) AS PER N.E.C. ARTICLE 250-50(D)

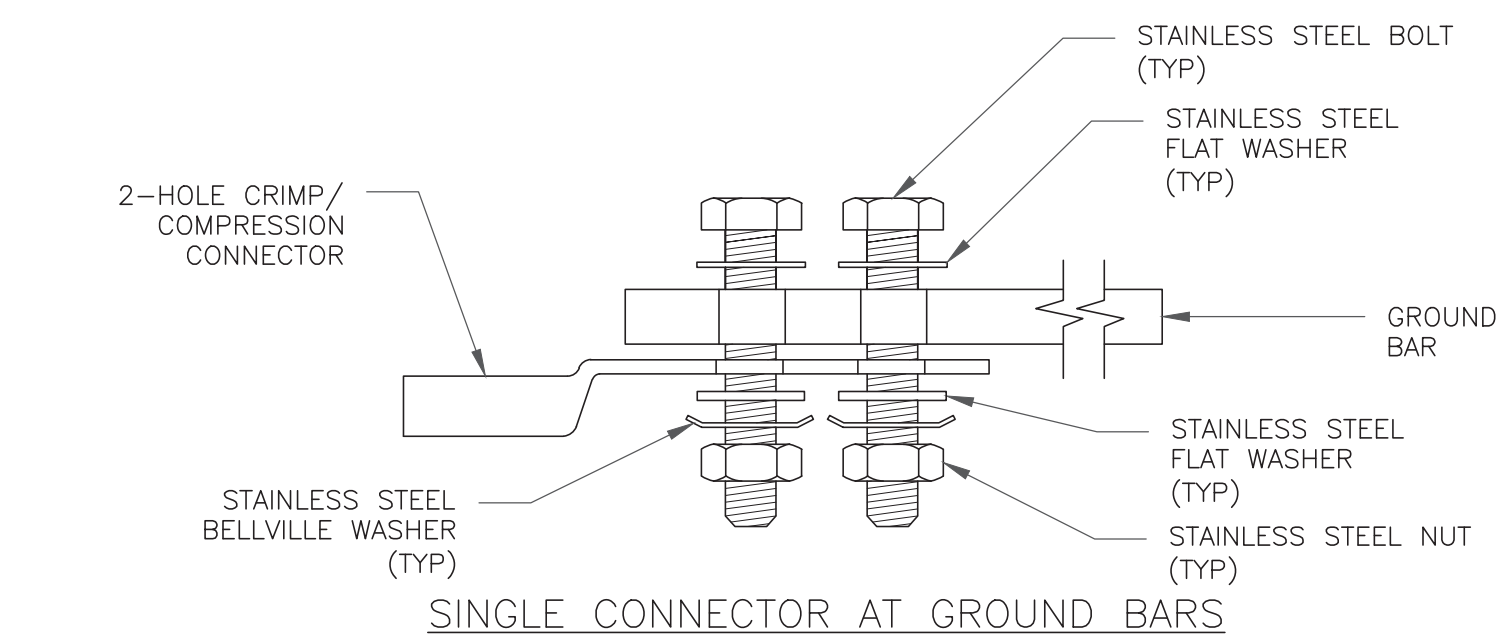
3 INSPECTION WELL DETAIL  
SCALE: NOT TO SCALE



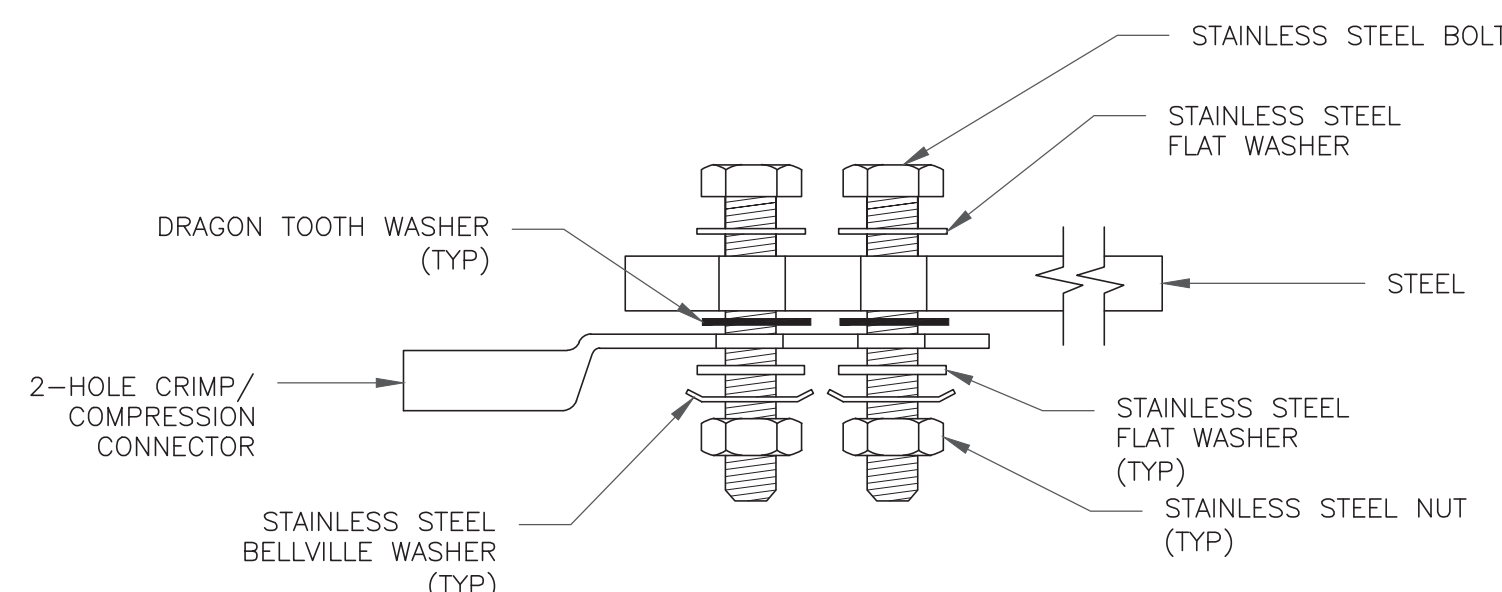
NOTES:

- NUMBER OF GROUNDING BARS MAY VARY DEPENDING ON THE TYPE OF TOWER, ANTENNA LOCATIONS AND CONNECTION ORIENTATION. COAXIAL CABLES EXCEEDING 200 FEET ON THE TOWER SHALL HAVE GROUND KITS AT THE MIDPOINT. PROVIDE AS REQUIRED.
- ONLY MECHANICAL CONNECTIONS ARE ALLOWED TO BE MADE TO CROWN CASTLE USA INC. TOWERS. ALL MECHANICAL CONNECTIONS SHALL BE TREATED WITH AN ANTI-OXIDANT COATING.
- ALL TOWER GROUNDING SYSTEMS SHALL COMPLY WITH THE REQUIREMENTS OF THE RECOGNIZED EDITION OF ANSI/TIA 222 AND NFPA 780.

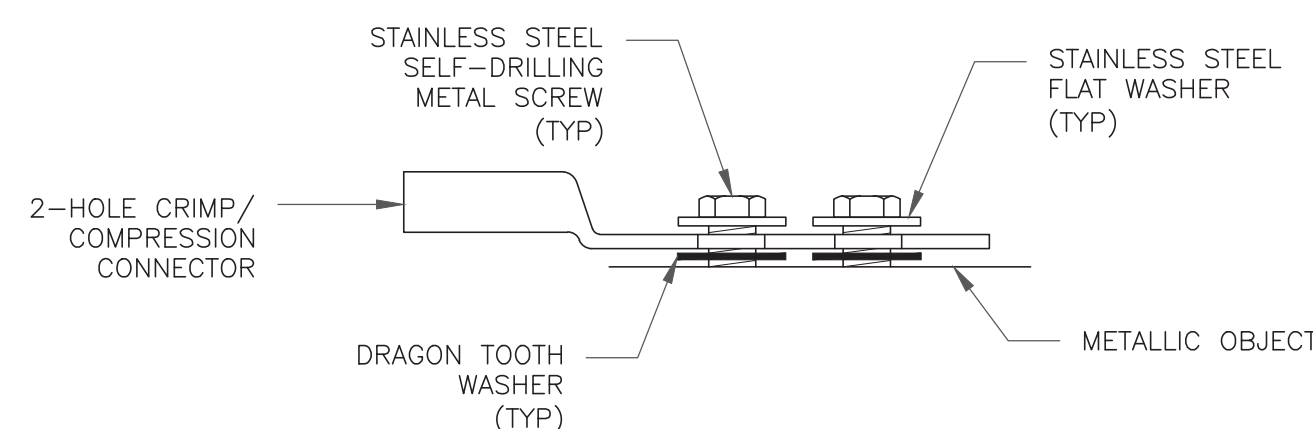
4 TYPICAL ANTENNA CABLE GROUNDING  
SCALE: NOT TO SCALE



SINGLE CONNECTOR AT GROUND BARS

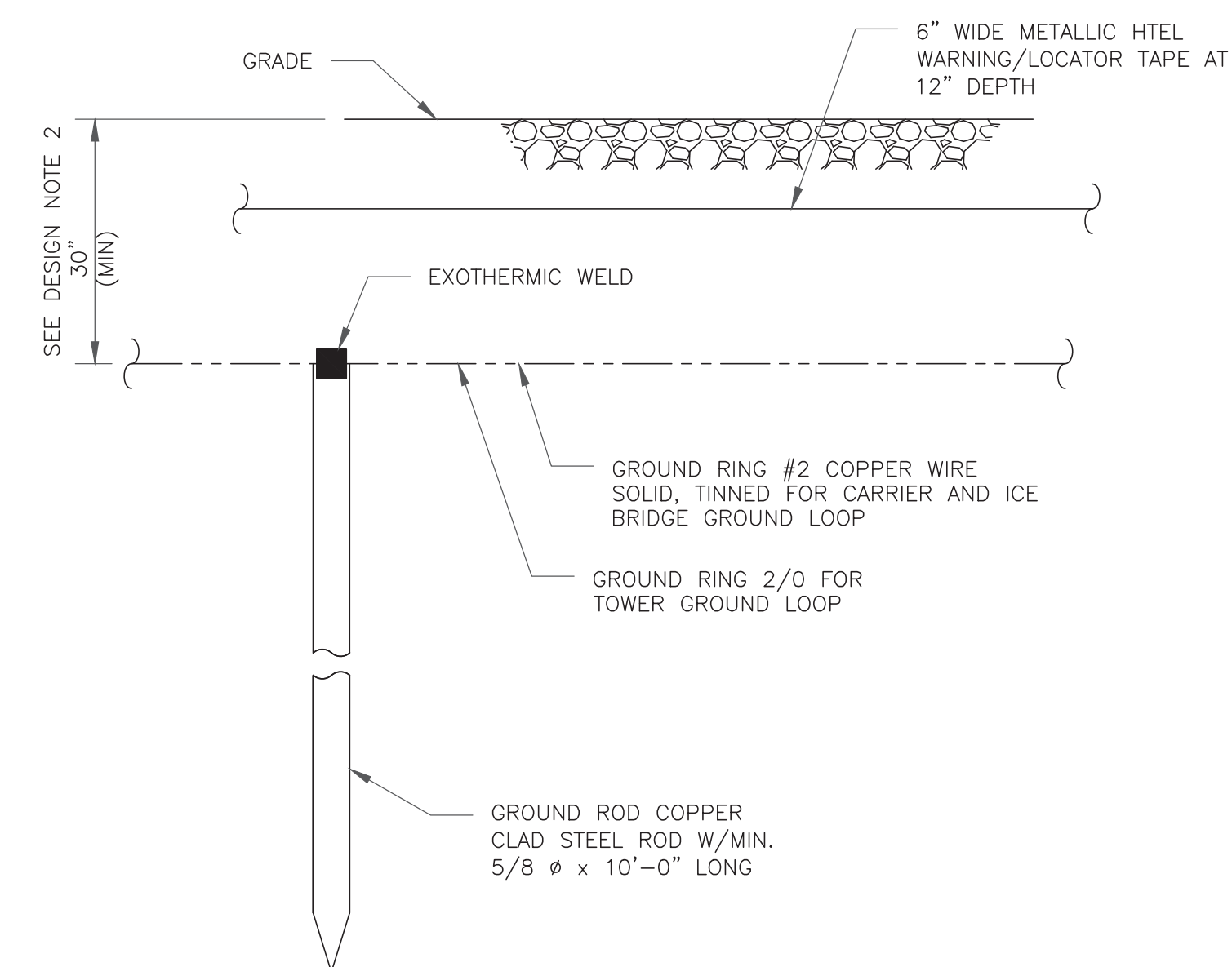


SINGLE CONNECTOR AT STEEL OBJECTS



SINGLE CONNECTOR AT METALLIC/STEEL OBJECTS

5 HARDWARE DETAIL FOR EXTERIOR CONNECTIONS  
SCALE: NOT TO SCALE



NOTES:

- GROUND ROD SHALL BE DRIVEN VERTICALLY, NOT TO EXCEED 45 DEGREES FROM THE VERTICAL
- GROUND WIRE SHALL BE MIN. 30" BELOW GRADE OR 6" BELOW FROST LINE. (WHICH EVER IS GREATER) AS PER N.E.C. ARTICLE 250-50(D)

6 GROUND ROD DETAIL  
SCALE: NOT TO SCALE

T-Mobile

35 GRIFFIN ROAD  
BLOOMFIELD, CT 06002

CROWN CASTLE

3 CORPORATE PARK DRIVE, SUITE 101  
CLIFTON PARK, NY 12065

B+T GRP

1717 S. BOULDER  
SUITE 300  
TULSA, OK 74119  
PH: (918) 587-4630  
www.btgrp.com

T-MOBILE SITE NUMBER:  
CT11269B

BU #: 876317  
WATERBURY

150 MATTATUCK HEIGHTS  
WATERBURY, CT 06705

EXISTING  
143'-0" MONOPOLE

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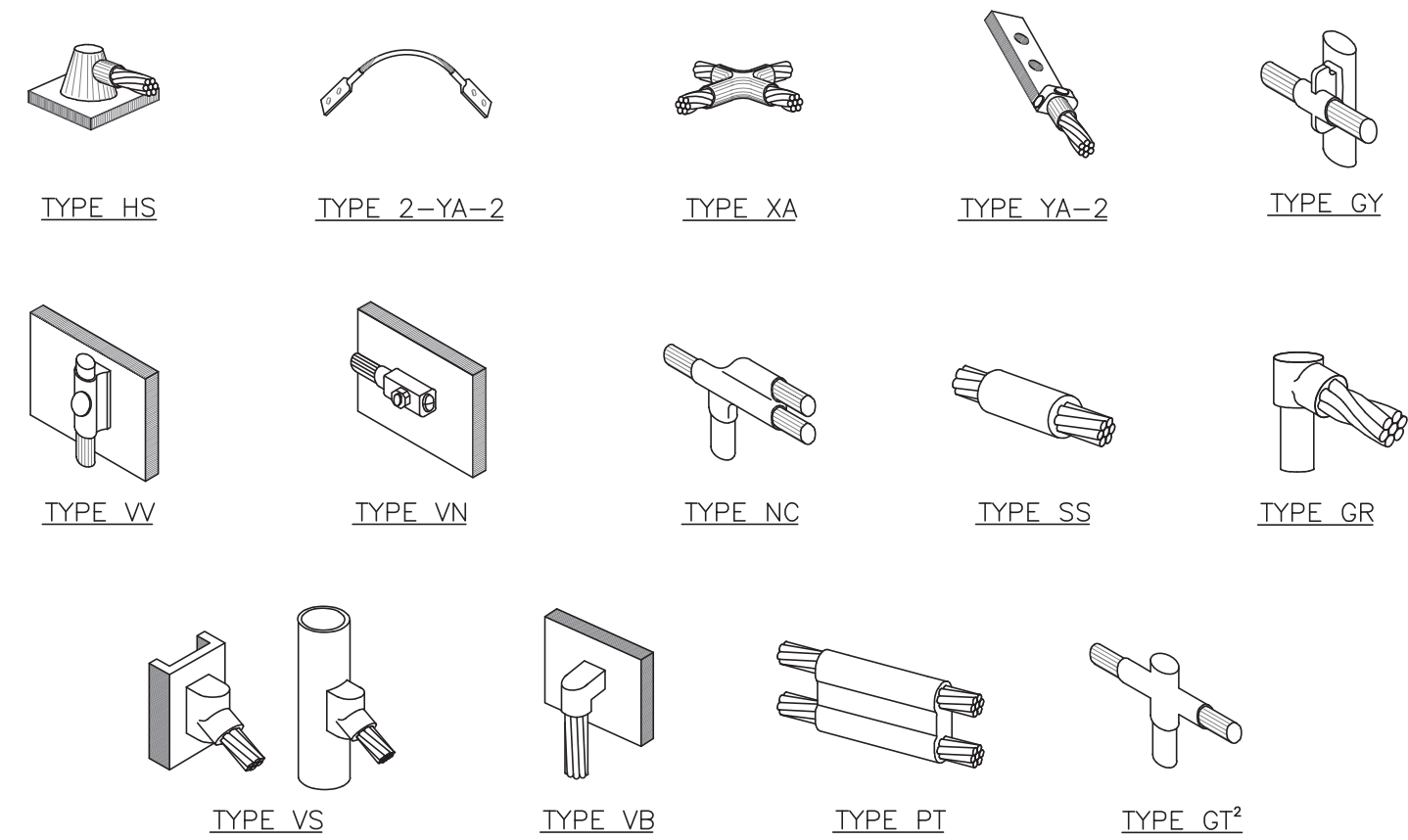
SHEET NUMBER:

G-2

REVISION:

0

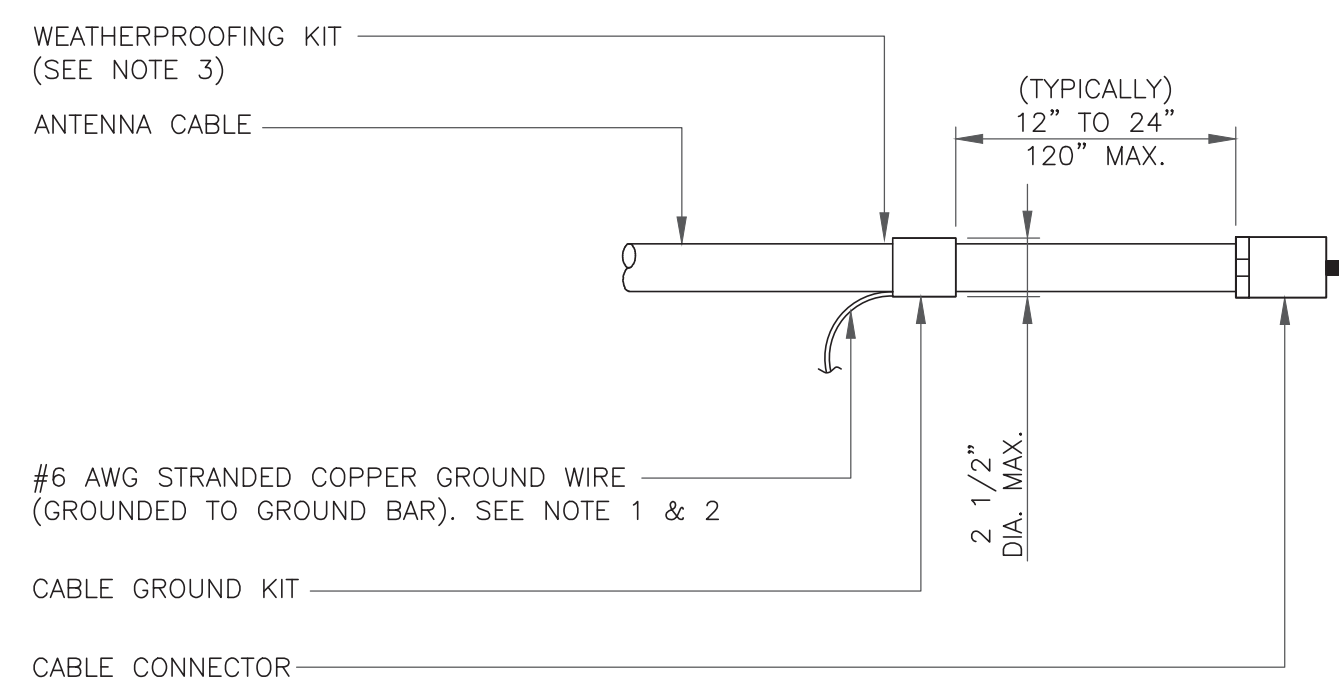




**NOTE:**

1. ERICO EXOTHERMIC "MOLD TYPES" SHOWN HERE ARE EXAMPLES. CONSULT WITH CONSTRUCTION MANAGER FOR SPECIFIC MOLDS TO BE USED FOR THIS PROJECT.
2. MOLD TYPE ONLY TO BE USED BELOW GRADE WHEN CONNECTING GROUND RING TO GROUND ROD.

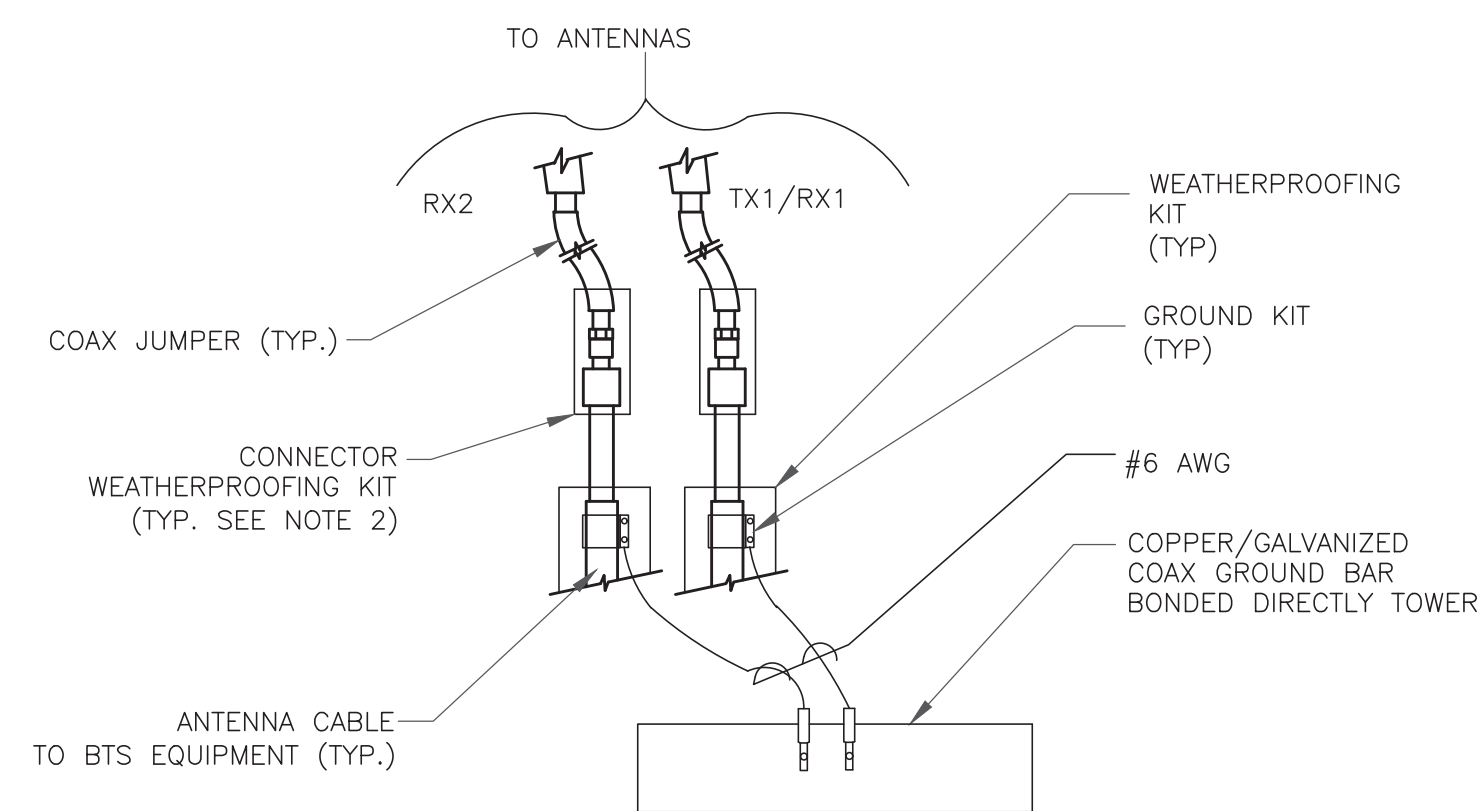
**1 CADWELD GROUNDING CONNECTIONS**  
SCALE: NOT TO SCALE



**NOTES:**

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
3. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT. COLD SHRINK SHALL NOT BE USED.

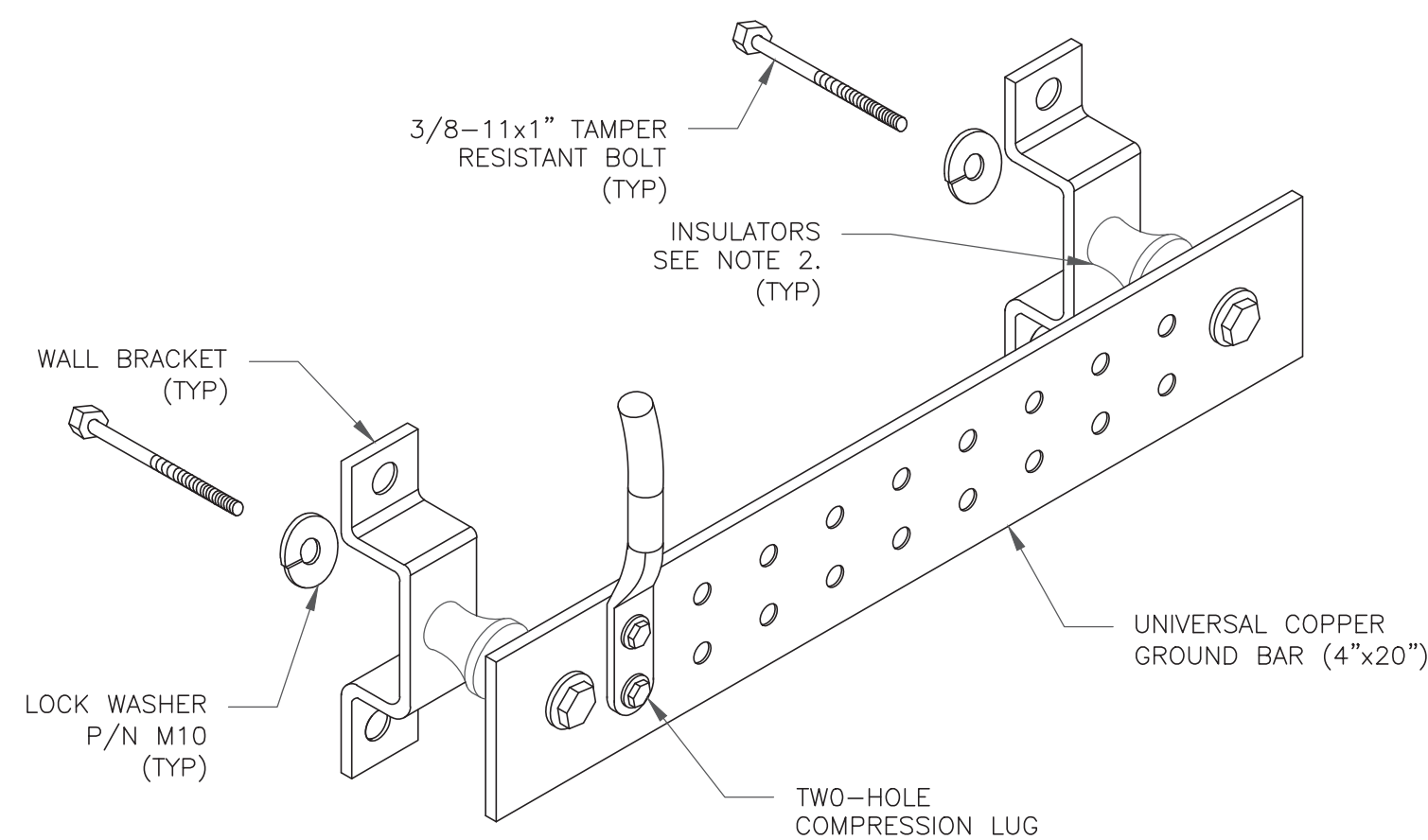
**3 CABLE GROUND KIT CONNECTION**  
SCALE: NOT TO SCALE



**NOTES:**

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO ANTENNA GROUND BAR.
2. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT. COLD SHRINK SHALL NOT BE USED.

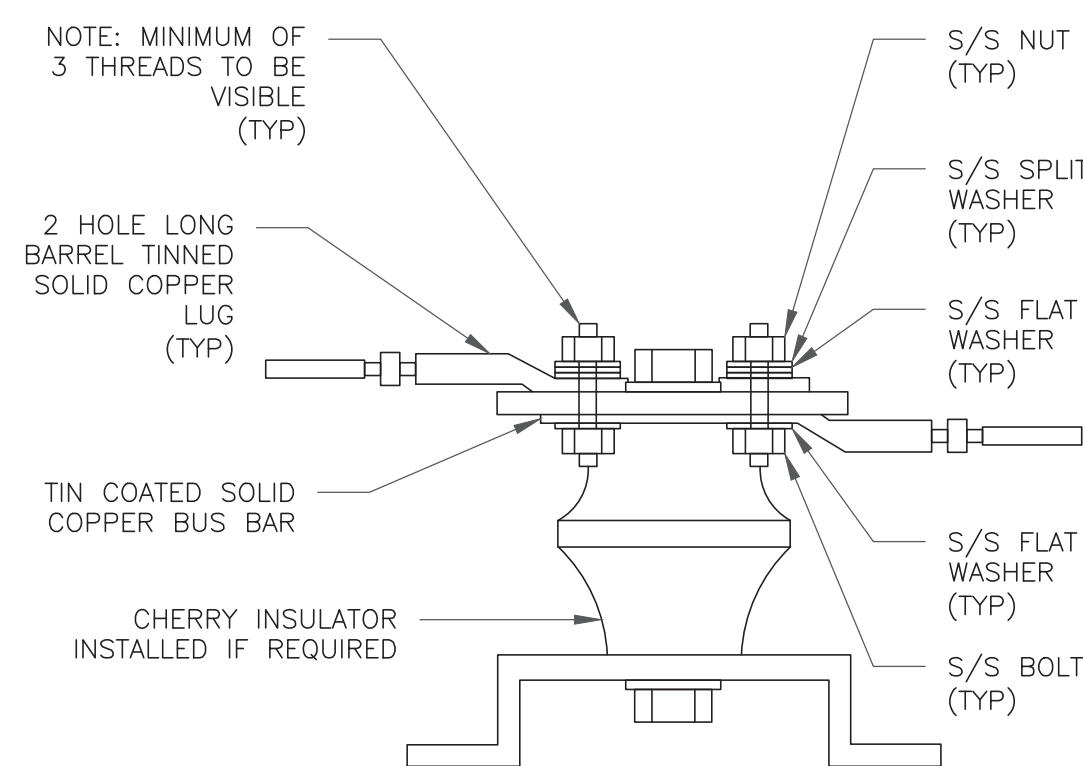
**4 GROUND CABLE CONNECTION**  
SCALE: NOT TO SCALE



**NOTES:**

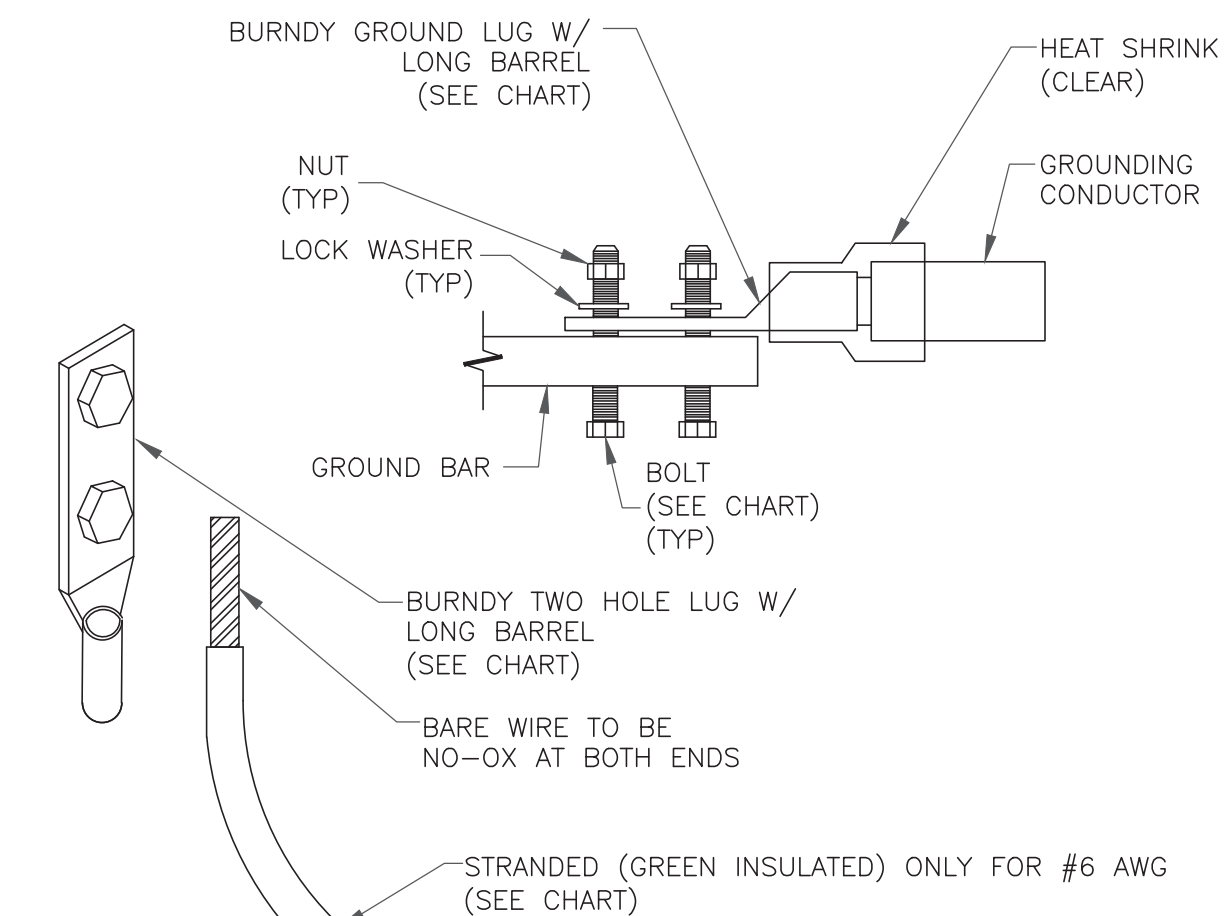
1. DOWN LEAD (HOME RUN) CONDUCTORS ARE NOT TO BE INSTALLED ON CROWN CASTLE USA INC. TOWER, PER THE GROUNDING DOWN CONDUCTOR POLICY QAS-STD-10091. NO MODIFICATION OR DRILLING TO TOWER STEEL IS ALLOWED IN ANY FORM OR FASHION. CAD-WELDING ON THE TOWER AND/OR IN THE AIR ARE NOT PERMITTED.
2. OMIT INSULATOR WHEN MOUNTING TO TOWER STEEL OR PLATFORM STEEL. USE INSULATORS WHEN ATTACHING TO BUILDING OR SHELTERS.

**6 GROUND BAR DETAIL**  
SCALE: NOT TO SCALE



**7 LUG DETAIL**  
SCALE: NOT TO SCALE

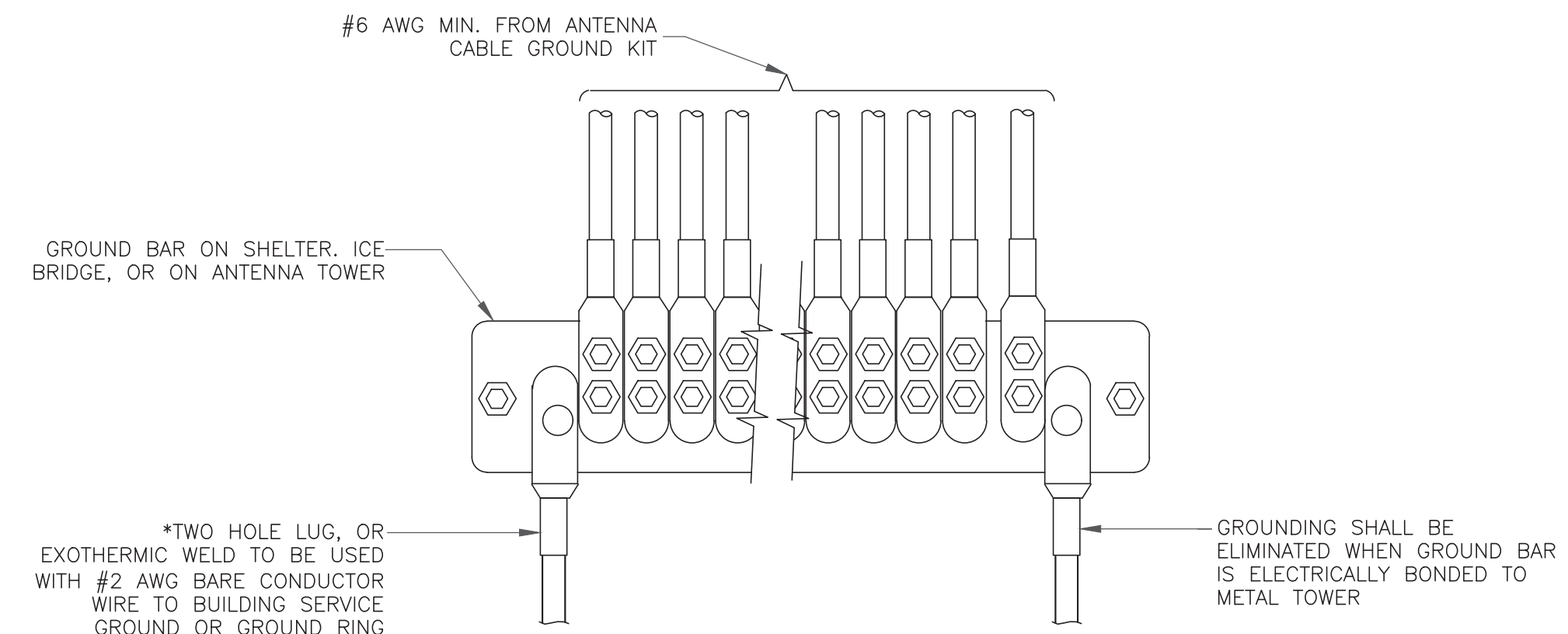
WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 AWG GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG SOLID TINNED	YA3C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG STRANDED	YA2C-2TC38	3/8" - 16 NC S 2 BOLT
#2/0 AWG STRANDED	YA26-2TC38	3/8" - 16 NC S 2 BOLT
#4/0 AWG STRANDED	YA28-2N	1/2" - 16 NC S 2 BOLT



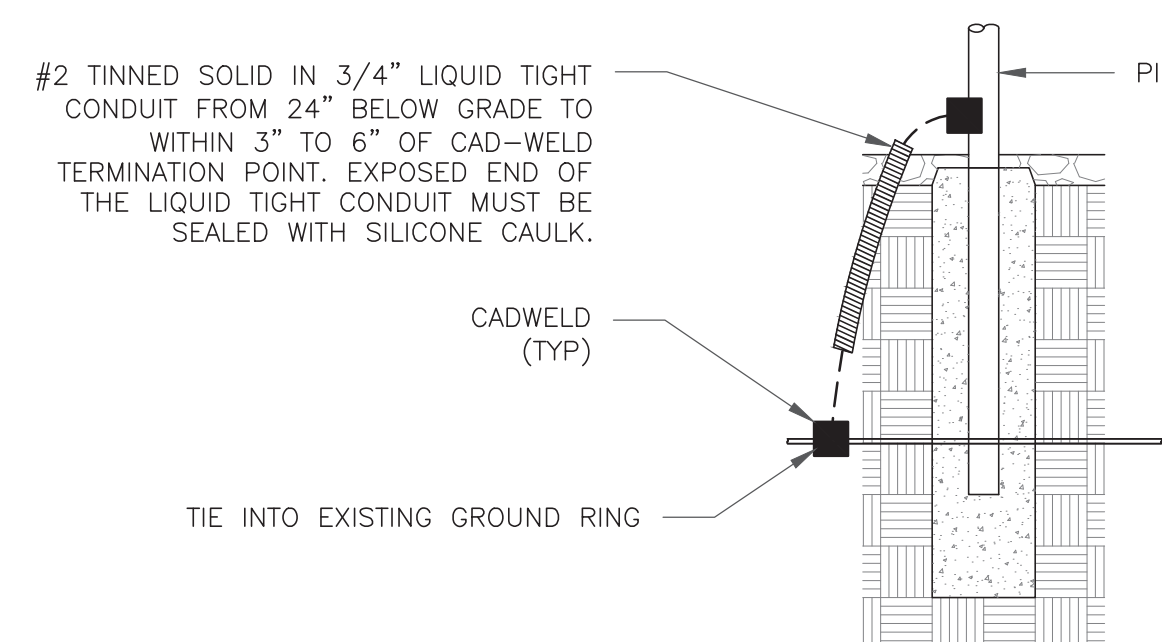
**NOTES:**

1. ALL GROUNDING LUGS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. ALL HARDWARE BOLTS, NUTS, LOCK WASHERS SHALL BE STAINLESS STEEL. ALL HARDWARE ARE TO BE AS FOLLOWS: BOLT, FLAT WASHER, GROUND BAR, GROUND LUG, FLAT WASHER AND NUT.

**2 MECHANICAL LUG CONNECTION**  
SCALE: NOT TO SCALE



**5 GROUNDWIRE INSTALLATION**  
SCALE: NOT TO SCALE



**8 TRANSITIONING GROUND DETAIL**  
SCALE: NOT TO SCALE

**T-Mobile**

35 GRIFFIN ROAD  
BLOOMFIELD, CT 06002

**CROWN CASTLE**

3 CORPORATE PARK DRIVE, SUITE 101  
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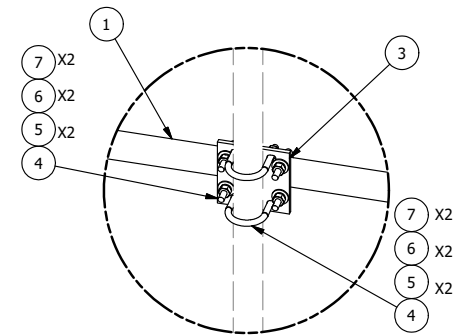
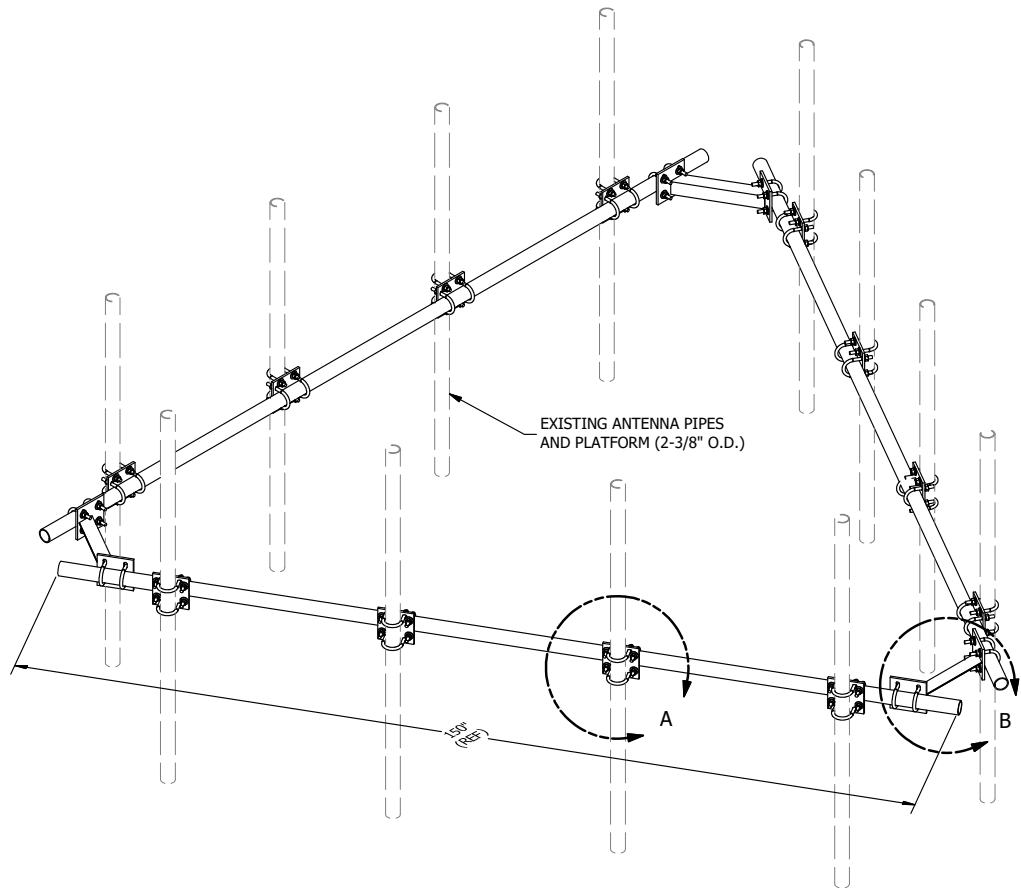
SHEET NUMBER:

**G-3**

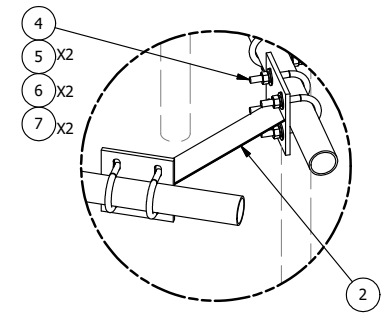
REVISION:

**0**

PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	3	P2150	2-3/8" O.D. X 150" SCH 40 GALVANIZED PIPE	150 in	45.77	137.31
2	3	X-AHCP	ANGLE HANDRAIL CORNER PLATE		12.92	38.76
3	12	SCX1	CROSSOVER PLATE 2-3/8" X 2-3/8"	6 in	3.71	44.50
4	60	X-UB1212	1/2" X 2-1/2" X 4-1/2" X 2" U-BOLT (HDG.)		0.63	37.51
5	120	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	4.09
6	120	G12LW	1/2" HDG LOCKWASHER	1/8 in	0.01	1.67
7	120	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	8.60
TOTAL WT. #						272.43



DETAIL A



DETAIL B

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
A	REPLACED HCP WITH X-AHCP	CEK		7/10/2014
REVISION HISTORY				

**TOLERANCE NOTES**  
**TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:  
 SAWED, SHEARED AND GAS CUT EDGES ( $\pm 0.030"$ )  
 DRILLED AND GAS CUT HOLES ( $\pm 0.030"$ ) - NO CONING OF HOLES  
 LASER CUT EDGES AND HOLES ( $\pm 0.010"$ ) - NO CONING OF HOLES  
 BENDS ARE  $\pm 1/2$  DEGREE  
 ALL OTHER MACHINING ( $\pm 0.030"$ )  
 ALL OTHER ASSEMBLY ( $\pm 0.060"$ )**

PROPRIETARY NOTE:  
 THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.

DESCRIPTION			
<b>HANDRAIL KIT FOR 12'-6" FACE</b>			
CPD NO.	DRAWN BY	ENG. APPROVAL	
	KC8 5/30/2012		
CLASS	SUB	DRAWING USAGE	CHECKED BY
81	01	CUSTOMER	BMC 7/13/2014

 <b>A valmont COMPANY</b>	<b>Locations:</b> New York, NY Atlanta, GA Los Angeles, CA Plymouth, IN Salem, OR Dallas, TX	
	Engineering Support Team: 1-888-753-7446	
PART NO.	<b>HRK12</b>	
DWG. NO.	<b>HRK12</b>	